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This guide for the training of home health aides is a compilation of lecture outlines supplemented by a suggested class schedule for the use of the program director in planning the overall program and preparing for the classes he is to teach. Developed by the Training Branch of the Division of Indian Health in cooperation with the Office of Economic Opportunity, the Oglala Sioux Tribe, and other interested individuals, the purpose of the program was to equip aides drawn from the reservation population to augment the Division's community health activities on the Pine Ridge Reservation in South Dakota. Units include: (1) Introduction, (2) Anatomy and Physiology, (3) Epidemiology, (4) Basic Home Nursing and Home Health Practice, (5) Environmental Health, (6) Home Management, (7) Community Resources, (8) Accident Prevention, (9) Education Techniques, and (10) Human Relations. Quizzes and lists of suggested references and teaching aids follow each unit. The classroom phase of the training was conducted in two sessions of twelve weeks each with twelve aides attending each session followed by four months of on-the-job training. Personnel qualified to handle each subject area are suggested. (JK)

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health auxiliary training

INSTRUCTOR'S GUIDE

prepared
by
the
DIVISION OF INDIAN HEALTH

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U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Public Health Service

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PREFACE

During the 1965 White House Conference on Health, "All the panels agreed that the role of the health team requires better definition. Relatively little is known about how this team should be constituted, the type of training necessary, the cost involved, and the effect of the team approach upon health of the people, or in fact, how the people will accept it. There is an urgent necessity for a careful analysis of the skills and knowledge needed by each allied health worker. Moreover, as national expectations rise and goals of achievement are developed, we must delineate manpower resource needs for all kinds of health workers. There is a particular need, it was brought out, to expand the concept of the physician-assistant, health visitor, community health aide or whatever you choose to call him.

"This person, with necessary working knowledge of the patient as well as the community, can serve to extend the services of the health team."

The Division of Indian Health, Public Health Service, in providing a comprehensive health program for American Indians and Alaska Natives, has found health auxiliaries to be an effective means of meeting the health needs of the population served. The expanded training and utilization of Indian and Alaska Native health auxiliaries has provided an opportunity to directly involve the beneficiary population in the health program and has made it possible to extend services to additional individuals.

The Indian and Alaska Native health worker, because of his understanding of the language and culture, and by virtue of his tribal origin, has fewer obstacles to overcome than the non-Indian in developing a rapport with the people he serves. He thereby serves as an effective liaison between the non-Indian professional and the beneficiary. With adequate training and supervision he becomes an effective health resource.

This concept has been further developed and supported in our program for the American Indian in cooperation with the Office of Economic Opportunity and Tribal Officials, by the Division's participation in and conduct of formal classroom instruction, field training, provision of technical and consultative assistance and supervision of Community Health Aides.

The Division of Indian Health is currently conducting expanded function training for dental assistants, sanitarian aides and practical nurses, all of whom are recruited from the Indian and Alaska Native populations. These health auxiliaries are trained and employed by the Division of Indian Health and work under the supervision of the professional staff. The training prepares the health auxiliary for assumption of many semiprofessional and less complex tasks thereby releasing the health professional for professional level responsibilities. Thus relieved of the less complex tasks, the professional is able to act as a manager of services, and increase the quantity and quality of services provided.

Significant additional benefits of programs designed to train health auxiliaries are the opportunities they afford to stimulate interest in the health professions and to motivate individuals to pursue further education which will qualify them for higher level positions in the health field. Dr. William Stewart, Surgeon General of the Public Health Service, in an address before the Joint Conference on Job Development and Training for Workers in Health Services, sponsored by the U.S. Department of Health, Education, and Welfare, Washington, D.C., February 17, 1966, stated, -- "Moreover, these people cannot be successfully trained in isolation from the health complex of which they will become a part. Teamwork in medicine is not an assembly line in which each man tightens his particular bolt, more or less irrespective of what happens before and after. Skills don't just touch each other; they are interwoven. A good nurse's aide is constantly growing in her understanding of the nurse's job. A good nurse develops many of the capabilities of the physician.

"Many of the barriers that now exist are arbitrary. They were placed by the traditions of another era and are maintained by thinking more appropriate to a guild of the Middle Ages than to a modern profession. There is a need for career ladders in the health professions. I think this need extends through the subprofessional levels as well, crossing the no man's land where the prefix sub is tacked onto the word professional.

"Our aim is not just to recruit and retain bodies. At every entrance level, we want to challenge the people with promise. For many bright young men and women who might join the health enterprise after leaving high school, the road to a medical degree would seem impossibly long. But there is no reason for us to train them in such a way that we put a heavy lid on their aspirations.

"Today, in order to advance upward in the health disciplines, it is generally necessary to go back to the beginning and start over. Academic credits acquired in pursuit of one occupational goal rarely count toward a higher goal, and work experience is generally undervalued. This is extremely discouraging to the individual. It is also extremely wasteful of talent that will always be in short supply. The guild system is a luxury we cannot afford."

The importance of the length of time devoted to this training as an element in motivation cannot be overemphasized. Sufficient time should be devoted to a course for health auxiliaries in order to permit such adequate coverage of the subject areas that confidence and the desired stimulus will be provided. The Division of Indian Health has found approximately twelve weeks adequate to serve these ends.

The experience in training health auxiliaries led the Division to the development of this manual which can serve as a guide in developing and conducting similar training Division-wide, and serve as a resource for the Service, the Department or other health related organizations to train auxiliaries for the purpose of augmenting services of available professional and technical personnel.

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SUGGESTIONS FOR PLANNING AND CONDUCTING THE TRAINING PROGRAM

1. General Information:

The Training Branch, Division of Indian Health, in cooperation with the Office of Economic Opportunity, the Oglala Sioux Tribe, and other interested individuals and groups participated in the training of 24 Community Health Aides at Pine Ridge, South Dakota. The principal purpose of the training was to equip the aides, who were drawn from the reservation population, with the skills and knowledge necessary for them to augment the Division's community health activities on the Pine Ridge Reservation. The formal classroom instruction phase of the training was conducted in two sessions of twelve continuous weeks, with twelve aides attending each session. This was followed by four months of on-the-job training.

This guide is a compilation of the lecture outlines - of subject heading or short sentence type - prepared by individual instructors, and references and resources utilized in the formal classroom instruction. While the material utilized was specifically oriented for home health type aides, it should be most helpful to professional health training personnel - especially those qualified in public health - in organizing and conducting similar training courses for community health aides and other auxiliaries, regardless of the health program being emphasized.

Prior to the start of the Course, the individual responsible for conducting the training should thoroughly review the guide and become familiar with each part. He should prepare teaching notes, arrange for supplementary supplies, materials and equipment. The need for advanced and thorough planning cannot be overemphasized. Arrangements with each guest lecturer, who must be thoroughly grounded in the subject he is to present, should be made far enough ahead to give him time to prepare his material. He must be given a thorough briefing on the background of the training program and its objectives and a definite understanding need be reached as to (1) the time he is to speak, (2) the length of his talk, (3) the material he is to present and (4) what he will need in the way of visual aid equipment, flip charts, demonstration models, etc. It should be understood in advance that his presentation will be in terms of the needs and problems of the class and that class members will be given an opportunity to ask questions and to discuss his subject with him.

2. Visual Aids and Equipment:

At the end of each section of the guide are listed references, resources and visual aids, charts or models pertinent to the subjects covered in the section. To be sure that necessary equipment is on hand and available, it is suggested that a check list be prepared and used.

The following is a suggested list of equipment that will be needed and available throughout the duration of the course.

- 16 mm Motion Picture Projector (sound)
- Overhead Projector
- 2 x 2 Slide Projector
- Film Strip Projector
- Record Player or Tape Recorder
- Flip Chart
- Velcro or Flannel Board
- Blackboard
- Screen
- Paper, Pads, Pencils

3. Selection of Teaching Personnel:

To assist in course planning and staffing, a suggested curriculum - as used in the Pine Ridge, South Dakota program - is included in Section A of the Appendix. After each subject there is listed as a guide categories of personnel appropriately qualified to handle the subject area.

The Course Director should take every opportunity possible to distribute assignments among as broad a selection of disciplines as possible in order to familiarize the aides with the spectrum of personnel involved in health work and avoid the provincialism inherent in programs restricted in categorical scope.

Part I

INTRODUCTION

PART I - INTRODUCTION

SECTION A - DAILY CLASS ATTENDANCE:

The purpose of this lecture is to stress the importance for each student to attend all classes as scheduled and to maintain an orderly and clean class room.

The abundance of information to be presented and learned during the training course and the limited availability of resource persons to teach each subject requires your fullest cooperation if the program is to be successful.

1. Student Responsibilities:

a. In keeping with good learning practice, you should record (take notes) important items as presented during lectures, demonstrations, discussions and field trips.

b. You should actively participate in discussions and reviews of subjects presented.

c. Study periods will appear on the class schedule during the day throughout the course. You will be expected to utilize this time for its intended purpose.

d. You will be required to take all quizzes and examinations scheduled.

e. Absence from class

(1) Inform your team leader when sickness prevents your attendance in class.

(2) Present a certificate signed by a Doctor for each day absent.

(3) No stipend will be paid for any day absent unless covered by a. and b. above.

(4) Unexcused absences and/or unapproved conduct in the classroom, as well as outside of the classroom, may result in dismissal from the course.

f. The students must keep the classroom in a clean and orderly condition. Team Leaders are responsible for assigning team members' duties for keeping the classroom in order:

(1) Sweep floor daily after last class.

(2) Keep study area in order.

(3) Place training materials in order, i.e., visual aides demonstration equipment, wash blackboard, dispose of used papers, etc.

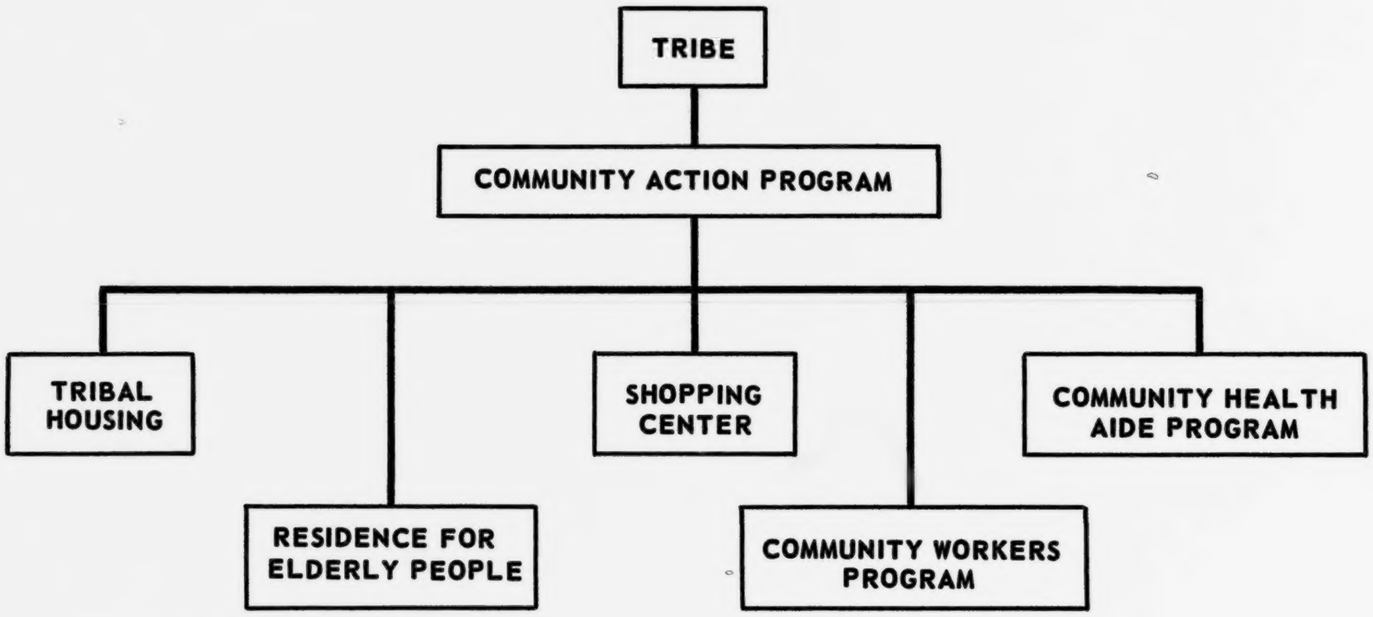
SECTION B - WHAT IS THE COMMUNITY HEALTH AIDE PROGRAM?

The purpose of this lecture is to explain: (1) the basic organization of the Community Health Aide Program; (2) the role of the Office of Economic Opportunity, the Tribe, the Public Health Service, the Bureau of Indian Affairs, and other Agencies in the Program; (3) the purpose and objectives of the Program; and (4) the functions of the Aides upon completion of classroom instruction.

1. Background and Organization:

a. The Community Health Aide Program is one segment of the Tribal Community Action Program. The Community Action Program is a comprehensive plan of various activities aimed at improving existing conditions on the Pine Ridge Reservation.

Diagramatically:


TRIBE
COMMUNITY ACTION PROGRAM
TRIBAL HOUSING
SHOPPING CENTER
COMMUNITY HEALTH AIDE PROGRAM
RESIDENCE FOR ELDERLY PEOPLE
COMMUNITY WORKERS PROGRAM

2. Purpose:

a. The purpose of the Community Health Aide Program is to assist in upgrading the general health of the population by teaching individual families to provide and improve their own home health and sanitation practices - SELF-HELP -

3. Objective:

a. The objective of the Community Health Aide Program is to show families that certain health problems exist and to create the idea that something can be done to improve these health problems. Then, when receptive, the families are shown how the problem can be improved and overcome. All efforts will be directed to the goal of improving the health of the Pine Ridge Indians to the highest possible level.

4. Action:

a. Provide 13 weeks of classroom instruction and 4 months of field training for 18 Community Health Aides and 3 Team Leaders to work among designated families in the Kyle, Oglala and Porcupine Communities on the Pine Ridge Reservation. (Training will be in two groups - the first group consisting of 9 Aides and 3 Team Leaders, the second group consisting of 9 Aides.)

b. The Team Leaders will be given specialized instruction to prepare them for supervisory responsibilities.

c. Instruction for the training program will be provided by qualified members of the Tribe, Bureau of Indian Affairs, Agricultural Extension Service, PHS Division of Indian Health and other available agencies.

5. Functions: Community Health Aides

Note: Although the male aides will participate in all training including home nursing, child care and home management, it is anticipated that their services will be best utilized because of acceptance by the beneficiaries in the areas of sanitation and health education. During the on-the-job training environmental health will be stressed for the male aides.

a. Home Nursing (By Demonstration and Simple Explanation)

(1) Handwashing

(2) Temperature taking

(3) Simple first aid measures

(4) Simple home care of the sick (bed bath, simple treatments, making and using improvised equipment)

(5) Proper brushing of teeth

(6) Feeding the sick

(7) Giving medicines prescribed by physician and dispensed for home use (no injections)

(8) The importance of early diagnosis and treatment of illness

b. Mother, Infant and Child Care

(1) Bathing infants and small children

(2) Formula preparation

(3) Feeding infants and small children

(4) Dressing for the weather

(5) The importance of prenatal care

(6) The importance of well baby clinics

(7) The importance of early immunizations

5. **Functions: Community Health Aides (Continued)**

   c. Nutrition

      (1) Food selection and menu planning (Basic Four)

      (2) Infant Feeding (see above 2)

      (3) Using surplus commodities

      (4) Feeding the sick (see above 1)

   d. Home Management and Sanitation

      (1) House cleaning methods

      (2) Garbage and waste storage and disposal

      (3) Care and simple maintenance of home sanitation equipment

      (4) Food preparation, storage and preservation

      (5) Cooking methods

      (6) Using safe water supply

      (7) Rodent and insect control

      (8) PL 86-121 project

   e. Other

      (1) Reporting of progress and problems to appropriate professional staff

      (2) Interpreting health and welfare services to the community

      (3) Liaison between community and service agencies

      (4) Assisting in field and school clinics as needed

6. **Functions: Team Leaders**

   a. Direct supervision of the Community Health Aides assigned to their respective teams.

   b. Assign workload among the Aides.

   c. Keep time and attendance reports on self and Aides assigned to their team and submit reports to Tribal Coordinator.

   d. Report absences daily to the public health nurse under whose supervision the Team Leader functions.

6. Functions: Team Leaders (Continued)

e. Assign substitutes to provide coverage in cases of absence of an Aide.

f. Transport Aides to and from work assignments.

g. Assist Aides in their duties as necessary.

h. Inventory supplies and submit requisitions as necessary.

i. Assure maintenance of vehicles.

j. Submit progress reports.

k. Evaluate performance of Aides.

SECTION C - BRINGING ABOUT CHANGE WHERE BENEFICIAL:

The purpose of this lecture is to teach the students that everything that exists need not be changed in order for the people to improve their health and that change, to a great extent, depends on the peoples' attitudes, customs, religion and usual way of life.

Also, it is intended to prepare the student for the times that resistance is encountered from families where change in health habits is very desirable.

1. Public Health & Change

a. Public Health Implies Change

(1) Prevention

(2) Prolonging life

(3) Promoting Health and Efficiency

(4) Promotion of beneficial change through Organized Community Effort.

b. C.H.A. Goal to influence beneficial change in reservation health practices.

2. Importance of Understanding and Awareness of Factors Influencing Change

a. Inter-relatedness of these factors

3. General Factors Influencing Change

a. Socio-Cultural Factors

(1) Values, beliefs, custom

(2) Family system - status structures

(3) Child rearing practices

(4) Socio-Cultural influence in Health Practices.

3. General Factors Influencing Change (Continued)

b. Attitudes

(1) Individual

(2) Family

(3) Community

(4) Attitudes toward Health

c. Economic Political Social Situation

(1) Basic need fulfillment, before readiness for change takes place - (Love, food, shelter, sex, etc.)

(2) Community political and power structure.

d. Education

4. Resistance to Change

a. Security of present pattern

(1) Faith offers security - religion

b. Fear of Change - Unknown or Failure

(1) Generally stronger among those in adverse circumstances.

(2) Fear may get worse.

c. Resistance to those bringing or improving change

(1) Hostile dependency

d. Reactions to Past Experience

e. Resistence often based on feeling not logic.

5. Factors Influencing Readiness to Change

a. Interest or motivation to change

(1) See value or benefits in change

(2) Dissatisfaction with present

(3) Induced motivation

5. Factors Influencing Readiness to Change (Continued)

   b. Capacity and availability of resources to make the change

   c. Progression of change
      (1) Must have relevance to present patterns.
      (2) Change influence readiness for further change.
      (3) Moving at their pace.

   d. Fulfillment of Basic Needs and Concerns

6. When Attempt Change

   a. When certain there is benefit in change

      (1) Implies sound judgement

   b. When there is harm in continuing old pattern.

   c. When there is readiness to handle change.

   d. When change can be easily integrated into rest of person's or family's pattern.

      (1) Don't disrupt without justification.

      (2) Don't impose change creating problems they may not be able to handle.

7. Suggestions for Influencing Change

   a. Individualism

   b. Move at their pace.

   c. Answer their concern and fears.
      (1) Know what you can and cannot handle.

   d. When discouraging a practice, must offer something to take its place.

   e. Support the accomplishment of something they are already doing.

   f. Importance of Communication.

      (1) Learn to listen - Verbal

8. Difficulty of Influencing Change

   a. Deeply ingrained patterns - not logical.
   b. Beneficial change: often slow and gradual.

SECTION D - HISTORY OF PUBLIC HEALTH:

The purpose of this lecture is to (1) impress upon the student that concern for health among people is not new; and (2) serve as background for future lectures.

1. Why Study History?

a. **Tribute for those people who made contributions in the field of public health.**

b. **"What is Past is Prologue". History shows what we have done, how we have done it, and enables us to understand many of the things we do now. It also helps to plan the future.**

2. Pre-Christian Era 5000-50 B.C.

a. Attitude

(1) Group and community organization.

b. Level of sanitation and health regulations found in this era.

(1) Cretans, Egyptians, Greeks and Romans 3000-50 B.C.

(a) Personal Health

- i. **Cleanliness**
- ii. **Physical Development**
- iii. **Education**
- iv. **Medications**

(b) Sanitation

- i. **Aquaducts and protection of water supply**
- ii. **Waste disposal systems**
- iii. **Building regulations**

(c) Governmental Regulations

- i. **Vital statistics**
- ii. **Supervision of food supply**

(2) Israelites 1250 B.C.

(a) Mosaic Law - First formal Public Health Law

- i. **Personal hygiene**
- ii. **Prevention of spread of communicable disease**
- iii. **Water and food regulations**
- iv. **Disposal of wastes**
- v. **Hygiene of maternity**

3. Early Christian Era 50 B.C. - 600 A.D.
    a. Attitude
        (1) Critical of all culture identified with the Roman Empire and paganism.
        (2) Development of new religions
    b. Increase in travel
        (1) Rise of Mohammedanism and pilgrimages to Mecca.
        (2) Crusades
    c. Spread of disease
        (1) Isolation
            (a) Forced isolation
            (b) Humane
                i. Leprosorium 600 A.D.

4. Middle Ages 600 - 1600 A.D.
    a. Attitude
        (1) Increase in exploration and commerce
        (2) Recognition of need to protect cities and countries of epidemic disease.
    b. Spread of disease
        (1) Leprosy
        (2) Cholera
        (3) Bubonic Plague
        (4) Other disease
    c. Prevention of disease
        (1) Recognition of contagious disease and an incubation period.
            (a) 1374 Venice banned entry of infected or suspected ships or travelers.
            (b) 1377 The port of Rogusa required travelers from plague areas to stay at a designated area outside the port and remain well for two months before being allowed to enter. This was the first Quarantine Law.

5. The Colonial Period 1600 - 1800 A.D.

a. Attitude

(1) The Renaissance brought increased education.

(a) Concept of the dignity of man

(b) Search for scientific truth

(2) Colonization of the new world to secure religious, social, and economic freedom.

b. Diseases

(1) Epidemics from European Countries

(2) New diseases from the West Indies, as Yellow Fever

c. Prevention of disease

(1) Quarantine

(2) Isolation

(3) Fumigation

(4) Establishments of City and State Boards of Health to promote the above measures.

(a) 1755 - Louisiana Board of Health to control Yellow Fever.

(b) 1793 - Baltimore, Maryland Board of Health.

(c) 1780 - Petersburg, Virginia Board of Health.

(d) 1799 - Massachusetts Board of Health.

6. The Pioneer and Industrial Period 1800 - 1870

a. Attitude

(1) Expansion of all resources

(a) England

i. Expansion of industry
ii. Exploitation of the worker

(b) United States

i. Expansion to new territory
ii. Industrialization and Urbanization of New England.

6. The Pioneer and Industrial Period 1800 - 1870 (Continued)

b. Health Problems

- (1) Growth of Urbanization (Cities)
  - (a) Crowding and poor living conditions.
  - (b) Greater spread of disease.
  - (c) Poor working conditions.
  - (d) Dependence upon others for their needs by city dwellers.
- (2) Pioneering
  - (a) Dangers of travel
  - (b) Greater spread of disease

c. Prevention of disease

- (1) Belief in miasma or supernatural causes.
- (2) Environmental cleanliness
- (3) Port quarantine and isolation
- (4) Beginning of humanitarianism
  - (a) Establishment of societies by philanthropic individuals and then by governments to alleviate health problems.
    - i. Regulation for child labor
    - ii. Sanitation laws
    - iii. Housing ordinances
    - iv. 1837 National Vaccination Board of England set up vaccination stations.
    - v. 1848 First general Board of Health established in London.

7. Developmental Period for Public Health 1870 - 1912

a. Attitude

- (1) Increase in humanitarianism
- (2) Scientific view
- (3) Beginning of governmental control of the health of individuals.

b. Health Problem

- (1) Epidemics continued but cause and means of prevention of many disorders were not known.
- (2) Insufficient resources and lack of public and political interest in health problems.

7. Developmental Period for Public Health 1870 - 1912 (Continued)

c. Prevention of disease

(1) Strengthening and broadening activities of state and local health departments.

(2) Establishment of national health agencies for greater control and standardization of local and state health departments.

(3) Establishment of voluntary or non-official health agencies.

(a) 1892 Philadelphia Anti-tuberculosis Society.

8. Modern Period of Public Health

a. Attitude

(1) Governmental control and subsidization. (supported by taxpayers)

(2) Scientific control of disease

(3) Humanitarianism

b. Health Problems of general population

(1) Decrease in communicable disease, and increase in chronic disease as heart disease, diabetes, cancer, etc.

(2) An older population

(3) Maternal and Child Health problems

(4) Mental Health Problems

c. Modern Public Health Structure

(1) Definition: Public Health is the Art and Science of

(a) Preventing disease

(b) Prolonging life

(c) Promoting health and efficiency through community effort for

i. the sanitation of the environment.
ii. the control of communicable infection.
iii. the education of the individual in personal hygiene.
iv. the organization of medical and nursing services for the early diagnosis and preventive treatment of disease.
v. the development of the social machinery to insure everyone a standard of living adequate for the maintenance of health and so organizing these benefits as to enable every citizen to realize his birthright of health and longevity.

8. Modern Period of Public Health (Continued)

c. Modern Public Health Structure (Continued)

(2) Reasons for Modern Public Health

(a) Empathy

(b) Regulation

(3) Types of Public Health Agencies

(a) International

i. official - World Health Organization
ii. non-official - International Tuberculosis Association.

(b) National

i. official - U.S. Public Health Service
ii. non-official - National Heart Association.

(c) State

i. official - South Dakota State Health Department.
ii. non-official - South Dakota Mental Retardation Society

(d) Local

i. official - Tribal Health Committee
ii. non-official - Lakota Health Association.

SECTION E - ETHICS AND CONDUCT IN THE COMMUNITY HEALTH AIDE PROGRAM:

The purpose of this lecture is to the student, that he or she must adhere to accepted, approved conduct such as is expected to be demonstrated by all responsible health workers.

1. Ethics

a. Considers rightness and wrongness in human behavior.

(1) Confidentiality regarding

(a) Records

(b) Medical information

(c) Conditions you find in homes

(d) Information people tell you

1. Ethics (Continued)

- a. Considers rightness and wrongness in human behavior. (Continued)
  - (2) Request for advice regarding medical care
    - (a) Choice of doctors
    - (b) Request for treatment not prescribed by a doctor nor clearly indicated by instruction in Health Aide Training Course.
  - (3) Criticism of
    - (a) Medical and Hospital Care
    - (b) Medical personnel
    - (c) Community Health Aides and Team Leaders
    - (d) The community and its people
  - (4) Responsibility
    - (a) Parent - Family
    - (b) Medical facilities

2. Conduct

- a. Refers to one's actions or behavior
  - (1) Appearance
    - (a) Uniforms as prescribed
    - (b) Neatness
    - (c) Jewelry permitted
    - (d) Make-up and hairdo
  - (2) Attitude
    - (a) Courteous
      - i. In making a home visit you are the guest.
    - (b) Sincerity and warmth, but with a professional reservation.
    - (c) Empathy
      - i. A capacity to be able to put oneself in the other's place - intellectually and emotionally, and to see the other's point of view.
  - (3) Conduct
    - (a) Amenability to rules and regulations
    - (b) Adequate study for acceptable academic achievement.
    - (c) Good character.

INTRODUCTION

QUIZ # 1

Name:____________________

1. **What is the Community Health Aide Program and what is it expected to achieve?**

Part II

ANATOMY AND PHYSIOLOGY

PART II - ANATOMY AND PHYSIOLOGY

SECTION A – INTRODUCTION TO ANATOMY AND PHYSIOLOGY

The purpose of this lecture on anatomy and physiology is to give the student a basic understanding of the composition of the human body.

1. Definitions

a. Human Anatomy - The science dealing with the structure of the human body and the relation to its parts.

b. Physiology - The science dealing with the functions of the human organisms and its parts.

2. Why Study Anatomy and Physiology?

a. To better understand, towards what our efforts are directed. . .

b. To better understand what is normal and what is not normal. . . recognition, in part. . .

c. To better understand "the why" in the performance of certain activities. . .

d. To better understand what other health workers are talking about. . .

3. Classification for the Human Organism

a. Human Being - Mammalia

b. Characteristics: Stand erect, nurse its young, vertebrate-backbone, bilateral symmetry.

4. Human Body is Divided into Cavities Containing Various Organs

a. Dorsal cavity

(1) Cranial cavity containing the brain

(2) Spinal cavity containing the spinal cord

b. Ventral cavity

(1) Chest (Thoracic) Cavity

(a) Pleural cavity containing the lungs

(b) Pericardial cavity containing the heart.

(c) Mediastinal area containing the esophagus (food tube), trachea (windpipe), larynx (voice box), the great blood vessels (aorta, vena cava), thymus (endocrine gland) lymphatic vessels, nerves.

4. Human Body is Divided into Cavities Containing Various Organs (Continued)

b. Ventral cavity (Continued)

(2) Abdominal cavity

(a) Peritoneal area containing the stomach, pancreas, small intestines, large intestines, gall bladder, liver and spleen.

(b) Pelvis area containing the reproductive organs, urinary bladder, ureter, urethra and parts of the large intestine.

(Further description and function of certain of the above mentioned organs will be given during lectures of the specific "system" concerned.)

5. The Cell

a. The body is made of cells.

b. Cell Composition

(1) cell wall

(2) Nucleolus

(3) nucleus

(4) cytoplasm

c. Unicellular

d. Multicellular

e. Osmosis (passing through a membrane) - "nutrition" and "excretion" of one-celled animals accomplished by this process.

f. Reproduction

(1) Mitosis - simple cell division (description)

(2) Fission - splitting into two or more parts (equal or not equal)

g. Nucleus - complicated body essential for normal growth, repair destruction, and reproduction of the cell, contains materials for transmission of hereditary traits.

6. Tissues - (an association of cells specialized in a similar function as a single unit and held together by material between each cell.)

   a. Types of tissue groups

      (1) Epithalial tissue (skin, mucous lining)

      (2) Connective tissue (tendons and legaments, cartilage, bone)

      (3) Nervous tissue (nerve cell)

      (4) Muscular tissue (muscles)

7. Organs and Systems

   a. Organ - an association of tissue together specializing in a similar function.

   b. System - a group of organs working together in a common function.

   c. Nine (9) body systems.

      (1) Skeletal

      (2) Muscular

      (3) Nervous

      (4) Circulatory

      (5) Respiratory

      (6) Digestive

      (7) Urinary

      (8) Endocrine

      (9) Reproductive

SECTION B – THE SKELETAL SYSTEM

The purpose of this lecture is to provide the student with an understanding of the skeletal system and its relationship to proper body function and health and the importance of good posture. The bones are the foundation of the body upon which the muscles, blood vessels and skin are placed and they provide constant protection for vital organs of the body.

1. Bone

a. Bone is connective tissue in which the spaces between the cells is made hard by being filled with mineral salts, mostly CALCIUM, and is composed of:

(1) Inorganic matter or mineral salts (2/3 of weight of bone)

(2) Organic matter consists of cells, blood vessels and cartilage or gristle. (1/3 of weight of bone.)

b. Structure of bone:

(1) Compact or dense - like ivory

(2) Spongy or cancellous (like lace or lattice-work)

Cell bone is porous but density differs. The compact bone is usually on the outside and the spongy bone inside.

c. Marrow:

(1) Red - found in ends of long bones in cancellous tissue.

(2) Yellow-marrow is found in the shaft of bone.

d. Periosteum is a thin fibrous (tough) membrane which covers the bone.

e. Bones are well supplied with blood.

f. Bones begin to form soon after the second month of intrauterine life and this process continues into adult life. For example, the breastbone, hip bone and sacrum unite at about 21 years of age.

2. Skeletal System

a. Functions:

(1) Protection
(2) Support
(3) Locomotion
(4) Form red blood cells

b. Classification

(1) Long - such as humerus, Femur, radius

(2) Short - such as carpals, tarsals patellae

(3) Flat - such as skull bones or cranium

(4) Irregular - Vertebrae

2. Skeletal System (Continued)

c. Table of Bones (206 in adults):

(1) Face and skull - - - -	22
(2) Ear (ossicles) - - - -	6
(3) Hyoid (in throat) - - -	1
(4) Vertebrae - - - - - -	26
(5) Ribs - - - - - - - - - -	24
(6) Sternum (breastbone)	1
(7) Upper extremities - - (humerus, clavicle, scapula, radius, ulna, carpals, metacarpals, phalanges)	64
(8) Lower extremities - - (hip bones, femur, patella, tibia, fibula tarsals, metatarsals, phalanges)	62

d. Division of Skeleton:

(1) Axial - Skull, ribs and vertebrae

(2) Appendicular - upper and lower extremities

3. Joints - A joint is a connection between bones or a place where the bones come together.

a. Kinds of Joints

(1) Immovable joints such as the skull bones and facial bones.

(a) Sutures - lines where skull bones meet

(b) Fontanel - soft spot in top of head in newborn baby. Closed usually by 18 months of age.

(2) Slightly movable joints such as the front of the hip bone which is joined by a cartilage which softens during pregnancy and allows some slight separation during childbirth.

(3) Freely movable (mostly joints of body) There are several types:

(a) Gliding joint - Carpals glide over each other

(b) Hinge joints - elbow joints

(c) Pivot joints - movement of radius over ulna.

(d) Ball and socket joint - hip joint and shoulder joint

3. Joints (Continued)

b. Movement of Joint:

(1) Gliding movement is one surface moving with another.

(2) Angular movement occurs in the long bones and by it the angle is increased or diminished.

(a) Flexion or bending

(b) Extension - Opposite of bending

(c) Abduction - away from middle line of body.

(d) Adduction - brought toward the body

(3) Circumduction - such as swinging the arms or legs.

(4) Rotation - bone moves around an imaginary axis such as holding the shoulder still and moving the humerus around in circular motion.

4. Diseases and Conditions

a. Sprain - wrenching or twisting of a joint accompanied by stretching or tearing the ligaments and tendons.

b. Dislocation is a sprain plus displacement of the bone.

c. Fracture

(1) Greenstick - occurs in children and is not a complete break - only some fibers of the bone are broken.

(2) Simple - a complete break in bone.

(3) Compound - bone is broken and broken ends of bone protrude through the flesh.

d. Rickets - caused by lack of vitamin D - Child is bowlegged, has swollen, painful joints and poor teeth.

e. Arthritis causes painful destruction of joints, deformity.

f. Cancer of bone - usually difficult to treat successfully.

5. Nutrition

a. Proper nutrition is important in supplying calcium and phosphorus to the body for bone growth and repair. In addition to minerals, vitamins A, C, and D help the body absorb and convert the raw materials into bone tissue. Good sources of these minerals and vitamins are provided by milk, cheese, green vegetables and other foods.

SECTION C – MUSCLES

The purpose of this lecture is to provide the student with an understanding of the muscles and their relationship to proper body function and health.

1. What Are The Muscles?

a. Organs composed of bundles of fibers.

2. What Do Muscles Do?

a. Hold the body together

b. Give the body shape

c. Allow the parts of the body to be moved and the body to move about.

d. Pumps blood through the body.

e. Allow people to breathe oxygen into their lungs and breathe out stale air (carbon dioxide).

f. Move food along the digestive tract

3. How Do The Muscles Function?

a. We decide to make a certain movement and our brain sends a message to the muscle to tell it to move. A sugar (glycogen) is stored in the muscles after the digestion of carbohydrates (sugars and starches) and gives the muscle energy to move.

4. Kinds of Muscles

a. Voluntary - moves by signals from the brain when we give the command.

(1) Skeletal muscles which allow movement of all the parts of the body.

(a) Flexors (bend)

(b) Extendors (straighten out)

(c) Abductors (moves sideways away from the body)

(d) Adductors (moves sideways toward the body)

(e) Levators (raise)

4. Kinds of Muscles (Continued)

b. Involuntary - smooth muscles which move on signals from the brain, but not automatically, not on our command.

  (1) Smooth

    (a) Stomach

    (b) Lungs

    (c) Iris of the eye

    (d) Gall bladder

    (e) Uterus

    (f) Cardiac Muscle (heart)

5. Parts of the Skeletal Muscles

6. How Do The Skeletal Muscles Move The Body and Its Parts?

a. The skeletal muscles are grouped in pairs, so that one contracts to allow for flexion and abduction while its mate relaxes. The action of this pair would be opposite for extension and abduction.

7. Some of the Main Skeletal Muscles

a. Sternocleidomastoid - bends and rotates the head. Abnormality causes "wryneck".

b. Intercostals - fasten ribs together and assist us to move the chest in breathing.

c. Deltoid - moves arm backwards, forwards, sideways, and around. Muscle - some medicines are injected into.

d. Diaphragm - Expands the chest and separates chest and abdominal contents.

e. Gluteal - Buttocks muscles. Some medicines are injected into this muscle.

8. Diseases of the Muscles

a. These diseases are paralytic in nature. Lack of use of the muscles causes them to weaken rapidly.

b. Some causes of lack of use of the muscles:

  (1) Poliomyelitis

  (2) Stroke (brain)

  (3) Injuries

  (4) Birth abnormalities (shorter muscles - club foot)

SECTION D - DIGESTIVE SYSTEM

The purpose of this lecture is to provide the student with a basic understanding of the organs making up the digestive system and their relationship to proper body function and health.

The function of the digestive system is to break down the food that is eaten into the smallest units that can be carried by the blood or lymph vessels for use in the cells of the body.

1. Mouth

a. Lips

b. Cheeks and jaws - contain powerful chewing muscles.

c. Tongue - composed of various types of muscle. Surface has taste buds to detect sweet, sour, salty or bitter.

d. Teeth - 32 in permanent set. Front set is for cutting and tearing food. The molars, at the rear, grind the food.

e. Salivary glands - (paratid, submaxillary, sublingual) produce saliva which is secreted directly into the mouth.

2. Pharynx (Throat)

a. Muscles push the bolus of food into the esophagus.

3. Esophagus

a. The tube which reaches the stomach, composed of involuntary muscles; outer layer is longitudinal and inner layer is circular. The alternate contraction and relaxation of the two sets pushes the food along the digestive tube in peristalic waves which cannot be stopped.

4. Stomach

a. A J-shaped organ located below the diaphragm used for a reservoir during digestion.

(1) Muscles - longitudinal, circular and oblique which contract to help grind up food.

(2) Lining - mucous membranes with many folds. Contains gastric glands which secrete the enzymes, and hydrochloric acid to aid in digestion.

5. Small Intestine

a. Three parts - duodenim, jejunum and ileum

b. About 20 feet long and 1 inch in diameter. Lies in folds in abdominal cavity.

c. Lining - different from stomach because it has circular folds and villi (fingerlike projections) to provide added surface to permit more absorption of food particles into the blood stream.

6. Large Intestine

a. About 5 feet long and 2-1/2 inches in diameter. In shape of picture frame around abdominal cavity.

b. The cecum, a blind pouch at the beginning has the appendix attached.

The colon extends upward then across and then downward where it becomes the rectum. The rectum extends to the anus (the opening of the large intestine to the exterior.)

c. Lining has fewer folds than small intestine and no villi.

d. Rectum - This is a sphincter. The external opening is under the control of the will (voluntary muscle).

7. Liver

a. Located just under the diaphragm, largest organ in the body.

b. Food products carried by blood vessels from the walls of the digestive tube are delivered to the liver, an important chemical plant.

c. Biliary Apparatus - bile is collected from the liver and may be stored in the gall bladder or go directly into the small intestine.

8. Pancreas

a. Located in the vicinity below the liver.

b. Produces pancreatic juices which are emptied into the small intestine to aid in digestion.

c. Groups of irregular cells are scattered about in the pancreas called islands of Langerhans which are concerned with the production of insulin.

9. Physiology of the Digestive System

a. Foods, when eaten must be changed so that body cells can use them to grow or repair themselves. Digestion occurs as the food is changed by enzymes as the food moves down the digestive tract. When the food has been digested it is absorbed into the blood stream from the small intestine. The body cells take what they need from the blood. After the food is used, the waste products are excreted.

b. Foods

(1) Carbohydrates from fruits and vegetables chiefly. Provides 2/3 of the calories the body needs for energy.

(2) Proteins - made up of many types of amino acids. Used for growth and body repair.

9. Physiology of the Digestive System (Continued)

b. Foods (Continued)

(3) Fats - Excellent source of energy.

(4) Accessory foods - vitamins are regulating chemicals needed for growth and control of body activities.

(5) Minerals - used to maintain the chemical balance of the body.

c. Digestive Process in each section of the G-I Tract

(1) In Mouth

(a) mechanical: mastication (chewing)

(b) chemical change: saliva is produced, which changes cooked starch to sugar.

(2) In Pharynx and Esophagus

(a) Mechanical change - swallowing - a complicated process in which the food is passed down into the stomach chiefly by peristaltic waves.

(b) chemical - mucus is produced which only keeps the food slippery.

(3) In Stomach

(a) mechanical changes - waves in the muscle move the food out. Empties in from 5 to 7 hours.

(b) chemical change - chief change is Proteins changed to simple foods. Hydrochloric acid is present.

(4) In Small Intestine

(a) mechanics

i. Rhythmic movement which mix the food.

ii. Peristalsis which moves the food along.

(b) chemical changes

i. Pancreatic juices which act chiefly on uncooked starches, large fat particles and proteins, proteases and peptones. Turns them into simple forms.

ii. Intestinal juice - act upon proteins and sugars and turns them into simplest forms.

iii. Bile - emptied when food (chyme) enters the duodenim. The bile salts help to dissolve fats and prepare them for further digestion.

9. Physiology of the Digestive System (Continued)

c. Digestive Process in each section of the G-I Tract (Continued)

(5) In Large Intestine

(a) Mechanical change - muscles are very sluggish. Moves about 3-4 times a day usually following meals.

(b) chemical change - no enzymes are secreted here. Mucus is secreted which keeps the feces moist.

(c) Functions - Filled with bacteria which act on undigested waste products.

(6) Liver

(a) Production of bile - The color comes from waste from the hemoglobin in broken down red blood cells. Helps to digest fats in the small intestine.

(b) Stores a form of sugar (Glycogen) until the body needs it and then it becomes glucose.

(c) Liver stores iron, protein, copper, vitamins A, D, B_{12}

(d) Nitrogen removed from amino acids. As urea a waste product.

SECTION E – CIRCULATORY SYSTEM

The purpose of this lecture is to provide the student with basic information on the blood circulatory system and its relationship to the proper functioning of the body.

1. Function

a. To take oxygen and food to the cells of the body.

b. To remove waste products from the cells of the body.

c. To regulate the body temperature.

d. To help protect the body against infection.

2. Anatomy

a. Heart

(1) Is a pump located in the chest cavity between the lungs.

(2) Is the size of the fist.

(3) Is composed mainly of muscle.

2. Anatomy (Continued)

b. Tissue of the heart:

   (1) Eyocardium - heavy muscle

   (2) Pericardium - outer covering

   (3) Endocaridum - inner lining

   (4) Coronary arteries - vessels supplying the heart with oxygen and food.

c. The heart is a hollow organ divided into right and left sides. Each side is divided into two cavities:

   (1) Upper - Atria or Auricle

   (2) Lower - Ventricle

d. Blood Vessels:

   (1) Veins - return blood to the heart.

   (2) Arteries - take blood away from the heart.

   (3) Capillaries - are very thin and small blood vessels connecting the arteries and veins.

e. When the heart contracts. . .blood is pumped out of the heart into the body - system.

   (1) Veins---) Right Atria---) Right Ventricle---) Pulmonary Artery---) Lungs---) Pulmonary Vein---) Left Atria---) Left Ventricle---) Arteries---) Capillaries---) Veins---) etc.

FILMS:

"Heart - How It Works", McGraw Hill Book Company 12 min., b & w

"Story of the Blood Stream", Part I, #235, color, Moody Institute of Science, 24 min.

"Story of the Blood Stream", Part II, #217, same as above.

SECTION F – RESPIRATION

The purpose of this lecture is to provide the student with an understanding of the respiratory system and its function and relationship to proper body function and health.

1. Definition

a. Respiration is taking fresh air into and expelling stale air from the lungs or respiration is taking up oxygen and giving off carbon dioxide.

2. Types of Respiration

a. External - Process of taking air into the blood stream in the lungs.

b. Internal - Process of replacing the carbon dioxide in the body's cells with oxygen.

3. Parts of the Respiratory System

a. Nose:

(1) Septum

(2) Mucous membrane

(3) Hairs

(4) Cilia

b. Sinuses:

(1) Maxillary

(2) Frontal

(3) Ethnoid

(4) Sphenoidal

c. Pharynx or Throat:

(1) Nasopharynx -- Uvula or soft palate
Auditory tube or Eustachian
Lymphatic tissue

(2) Oropharynx - Tonsils

(3) Laryngopharynx

(a) Two openings

i. Larynx (Anterior)
ii. Esophagus (Posterior)

d. Larynx or Voice Box

(1) Composed of 9 cartilages, bound by skeletal muscles.

(a) Vocal cords

e. Trachea or Windpipe

(1) 20 U-shaped cartilages

3. Parts of the Respiratory System (Continued)

f. Bronchial tree

(1) Right primary bronchi

(a) 3 branches

(b) Hili

(c) Bronchi

(2) Left primary bronchi
(a) 2 branches

(b) Hili

(c) Bronchi

g. Thoracic Cavity

(1) Diaphragm

(2) Mediastinum

(a) Heart

(b) Great vessels

(c) Nerves

(d) Thymus gland

(e) Trachea, esophagus

(3) Pleurae

(a) Paired closed sacs of two layers with fluid in between.

(4) Lungs
(a) Light, porous and spongy

(b) Lobes

i. 3 on right
ii. 2 on left

(c) Lobules

(d) Bronchiole

3. Parts of the Respiratory System (Continued)

g. Thoracic Cavity (Continued)

(4) Lungs (Continued)

(e) Terminal Bronchiole

(f) Respiratory bronchioles

(g) Alveolar ducts - corridors

(h) Atria

(i) Alveoli - 700 million

(j) Abundant blood supply containing many capillaries.

4. Process of Respiration

a. Conducting portion and function

(1) Nose, Pharynx, Thorax, Bronchi

(a) Warm air

(b) Strain out foreign bodies.

b. Respiratory portion and function

(1) Thoracic cavity

(a) Encloses respiratory organs and heart and great vessels.

(b) Muscles allow the chest to change its size during inhalation and exhalation.

(2) Pleurae - 2 closed serous sacs

(a) Cover the lungs.

(3) Lungs

(a) Allow the change of air or gas and blood that takes place within the lungs.

i. Exchange of oxygen and carbon dioxide by absorption or osmosis - from higher to lower concentration.

(b) Oxygen is carried in the blood in two ways

i. Plasma - supplies tissue fluid and tissue cells.

ii. Hemoglobin - supplies the plasma when its supply becomes low.

4. Process of Respiration (Continued)

b. Respiratory portion and function (Continued)

(c) Carbon dioxide is carried in the blood four ways

i. Plasma to assist in osmosis

ii. Plasma as sodium acid carbonate to assist the chemical balance.

iii. In the red blood cells

iv. In the hemoglobin of the red blood cells.

5. Diseases

a. Nose

(1) Rhinitis or common cold

(2) Sinusitis

(3) Infected middle ear

b. Pharynx

(1) Tonsillitis

(2) Adenitis

c. Larynx

(1) Cancer

(2) Laryngitis

(3) Laryngospasm - Croup - "Crowing"

(4) Tracheotomy - operation

(5) Aspirate

d. Bronchi

(1) Bronchitis

(2) Bronchiectosis - Dilatation

(3) Asthma

(4) Bronchoscopy

5. Diseases (Continued)

   e. Lungs

      (1) Atelectosis - collapse or partial collapse of a lung.

      (2) Emphysems

      (3) Pleurisy - Dry or with effusion

      (4) Empyema

      (5) Pneumonia - Lobar, bronchial or viral

      (6) Abscess

      (7) Tuberculosis

6. Cyanosis or Blue Tinged Skin is Caused by Lack of Oxygen

   a. Dysprea - Difficult breathing

   b. Apnea - No breathing

7. Cause of Disease

   a. Inanimate substances (dust, fumes, pollen, etc.)

   b. Microorganisms (bacteria, viruses, fungi)

8. *Transmission of Disease*

   a. Direct contact (kissing)

   b. Indirect contact (drinking from used glass)

   c. Droplets (Sneeze, cough or speech)

   d. Droplet nuclei (Evaporation of liquid from droplet)

9. Factors Which Influence Transmission of Respiratory Diseases

   a. Distance involved

   b. Temperature and humidity

   c. Ventilation

   d. Air currents

   e. Dust

9. Factors Which Influence Transmission of Respiratory Diseases (Continued)

   f. Number of contacts to a disease

   g. Personal hygiene

   h. Low resistance in the host

      (1) Sex

      (2) Race

      (3) Fatigue

      (4) Poor diet

   i. Season

10. Treatment of Disease

   a. Specific to disease

11. Prevention of Disease

   a. Health education - mode of transmission and prevention.

   b. Adequate medical and laboratory facilities for early diagnosis and treatment.

   c. Medication to cure the disease.

   d. Examination of contacts and all persons suspected of having disease.

   e. Prompt institution of adequate medical care of persons found to have the disease.

   f. Isolation as necessary.

SECTION G – UROLOGY

The purpose of this lecture is to provide the student with an understanding of urology and its relationship to proper body function and health.

1. Anatomy

   a. Kidney

   b. Ureter

   c. Bladder

   d. Urethra

2. Physiology
   - a. Kidney - Nephron
     - (1) Rids waste
     - (2) Maintains homeostasis
   - b. Bladder

3. Terminology
   - a. Blood Tests
     - (1) Blood urea nitrogen (B.U.N.)
     - (2) Creatiniae
     - (3) Uric acid
   - b. Urinalaysis
     - (1) Color
     - (2) Specific gravity
     - (3) PH
     - (4) Albumin
     - (5) Sugar
     - (6) Microscopic
     - (7) Other
   - c. Radiology
     - (1) Intravenous pyelogram (I.V.P.)
     - (2) Retrograde pyelogram
     - (3) Cystogram
     - (4) Voiding cystourethrogram

4. Diseases
   - a. Congenital
   - b. Trauma - contusion

4. Diseases (Continued)
   - c. Infection
     - (1) Pyelonephritis
     - (2) Cystitis
     - (3) Urethritis
   - d. Auto-immune
     - (1) Glomerulonephritis

SECTION H – ENDOCRINE SYSTEM

The purpose of this lecture is to provide the student with an understanding of the endocrine system and its functions in relationship to health.

1. Definition
   - a. Endocrine glands are ductless glands within the body that form and release one or more hormones into the blood stream.
   - b. A hormone is a chemical substance that in small quantities has a profound influence on the body.

2. Parathyroid Gland
   - a. Location
   - b. Function
   - c. Effect

3. Islands of Langerhans
   - a. Location
   - b. Function
   - c. Effect

4. Thyroid
   - a. Location
   - b. Function
   - c. Effect
     - (1) Hyperthyroidism
     - (2) Hypothyroidism

5. Adrenal Gland (Medulla and Cortex)
    a. Location
    b. Function
    c. Effect
6. Pituitary
    a. Location
    b. Function
    c. Effect
7. Growth Hormone
8. Thyroid Stimulating Hormone
9. Adrenocorticotropic Hormone

SECTION I – REPRODUCTIVE SYSTEM

The purpose of this lecture is to provide the student with an understanding of the male and female reproductive system and their functions.

1. General

   The Reproductive System is that group of specialized organs whose function is to allow human beings to reproduce their own kind.

2. Anatomy
    a. Female
        (1) Ovary - The primary organ of the female reproductive system which produces numerous female hormones and most important the egg for reproduction.

        (2) Fallopian Tubes (Oviduct) - The structure which transports the egg from ovary to uterus.

        (3) Uterus - The organ which harbors the egg and supplies nutrition for growth of the fetus.

        (4) Cervix - The opening of the uterus.

        (5) Vagina - The external opening of the reproductive system.

        (6) Labia - The skin surrounding the vagina.

2. Anatomy (Continued)

b. Male

(1) Testes - The primary organ of the male reproductive system which produces testosterone, the male sex hormone and sperm for reproduction.

(2) Vas Defferns and Ejaculatory Duct - The tube like structure which transports sperm from testes to urethra.

(3) Penis - Male organ for final transport of sperm.

3. Physiology, Female

a. General - Egg produced by ovary is transported to Uterus - which has been made receptive by proper action of hormones. If egg is fertilized, it settles in uterus and developes into fetus. If unfertilized by sperm, the blood rich endometrium (inside lining of uterus) is sloughed and menstral period follows.

Delicate balance of hormones secreted by pituitary gland follicle stimulating hormone (FSH) and Leutenizing Hormone (LH) and hormones secreted by ovary, estrogen and progesterone are responsible for female menstral cycles.

b. Pregnancy - Following fertilization of egg in Fallopian tube, it migrates to uterus where it settles and grows into fetus, (baby). Placenta (afterbirth) developes and is an organ which supplies food and oxygen to fetus and removes waste. After about nine months (266 days) in the uterus the fetus is well developed and labor begins - the normal method by which the muscles of the uterus expel the fetus - birth.

4. Pathology

a. Pregnancy

(1) Tubal pregnancy

(2) Placenta priva (afterbirth first)

(3) Anemia

(4) Erythroblastosis (Rh blood type incompatability)

(5) Toxemia

b. Abortion (Miscarriage)

(1) Natural

(2) Unnatural (Criminal)

4. Pathology (Continued)

c. Infection

(1) Trichamoniasis

(2) Monilia

(3) Venereal Disease

(a) Gonorrhea

(b) Syphilis

d. Tumors

(1) Benign - Fibroid tumor of uterus.

(2) Malignant - Cancer of cervix.

SECTION J – THE SENSES

The purpose of this lecture is to provide the student with an understanding of the senses, their function and relationship to proper body function and health.

1. See - Eye

a. Eye structure. (Label each part of the diagram as it is discussed and shown on the overhead projector. Also examine model of the eye.)

(1) Iris

(2) Ciliary muscle

(3) Cornea

(4) Optic nerve

(5) Lens

(6) Pupil

(7) Aqueous humor

(8) Vitreous humor

b. Eye function - Trace light rays from outside the body through the eye and to the brain.

(1) Function of conjunctiva

(2) Function of lacrinial apparatus

1. See - Eye (Continued)

    b. Eye function (Continued)

        (3) Eyelids

        (4) Eye muscles

    c. Diseases of the eye.

    d. Application of medications to eye when prescribed by a physician.

2. Hear - Ear

    a. Ear structure. (Label each part of the diagram as it is discussed and shown on the overhead projector.)

        (1) Outer-ear (pinna)

            (a) Made up of cartilage

            (b) Function is to "gather" sound waves and guide them to the inner ear.

        (2) Inner-ear

            (a) Eardrum

            (b) Hammer and anvil

            (c) Stirrup

            (d) Cochlea

            (e) Semicircular canals

            (f) Eustachian tube

            (g) Auditory nerve

    b. Ear function - Description of how sounds travel through the ear to the brain.

    c. Diseases associated with the ear.

        (1) Middle ear infection (Otitis media)

        (2) How throat infections can spread to the middle ear.

    d. Application of medications when prescribed by a physician.

3. Touch-Skin

a. Skin structure. (Label each part of the diagram as it is discussed and shown on the overhead projector.)

(1) Epidermis

(2) Dermis

(3) Sebaceous gland, sebaceous duct

(4) Sweat gland

(5) Hair root

b. Functions of the skin, importance

c. Pimples, cysts, cuts, bruises and other disruptions on the skin.

d. Why cleanliness is important

e. How we feel something that is touched.

4. Taste - Tongue

a. Structure of the tongue. (Label each part of the diagram as it is discussed and shown on the overhead projector.)

(1) Thick muscle having:

- (a) Base - bitter tasting area
- (b) Papillae - (taste buds)
- (c) Margin - salt and acid tastes
- (d) Tip - sweet taste

(2) Observe, in detail, your own tongue reflected in mirror.

5. Smell - Nose

a. Structure of the nose. (Label each part of the diagram as it is discussed and shown on the overhead projector)

(1) Vestibule
(2) Turbinates
(3) Olfactory nerves
(4) Frontal sinus
(5) Palate
(6) Uvula

5. Smell - Nose (Continued)

   b. Function of each labeled part

   c. Trace an odor as it enters the vestibule and stimulation travels to the brain.

      (1) Olfactory nerves "tire" very quickly. . .

   d. Dust and large particles "filtered" from air by hairs and sticky membranes.

   e. Diseases affecting the "nose" and linings.

   f. Application of medications when prescribed by a physician.

SECTION K – STRUCTURE AND FUNCTIONS OF SKIN

The purpose of this lecture is to provide the student with a basic understanding of the structure of the skin and its functions.

1. Skin Structure
   a. Two distinct layers

      (1) Epidermis, cuticle, or scarf skin

      (2) Corium, cutis vera, or dermis

2. Skin Functions
   a. Covers the body

   b. Protects deeper tissues from

      (1) drying

      (2) injury

      (3) invasion by foreign organisms

   c. Important factor in heat regulation

   d. Contains end-organs of many sensory nerves.

   e. Has limited excretory and absorbing power.

3. Appendages, structure and functions of:
   a. Nails

   b. Hairs

3. Appendages, structure and functions of: (Continued)
    c. Sebasceous glands
    d. Sweat glands
    e. Cerumenous glands

SECTION L – REFERENCE BOOKS, PAMPHLETS, FILMS AND DIAGRAMS

The following materials were available and utilized in conjunction with lectures under the heading Anatomy and Physiology.

1. Books
    a. The Human Body in Health and Disease, Memmler
    b. The Wonderful Human Machine, American Medical Association, 535 N. Dearborn St., Chicago, Ill.

2. Films
    a. "The Human Machine", #650, Moody Institute of Science, 15 minutes.
    b. "From Generation to Generation", color, 24 minutes.
    c. "Heart - How It Works", McGraw Hill Company, black & white, 12 minutes.
    d. "Story of the Blood Stream", Part I, #235, Moody Institute of Science, color, 24 minutes.
    e. "Story of the Blood Stream", Part II, #217, Moody Institute of Science, color, 24 minutes.
    f. "Body Defenses Against Disease", #232, Encyclopedia Britannica Film Inc., black & white, 15 minutes.

3. Diagrams of Human Anatomy: Drawn by Instructor and reproduced on ditto machine.
    a. Eye structure
    b. Ear structure
    c. Male Reproductive System
    d. Female Reproductive System

3. Diagrams of Human Anatomy (Continued)

   e. Urinary System
   f. Nervous System
   g. Circulation Through the Heart and Lungs
   h. Digestive System
   i. Muscle (back, hip, legs and arms)
   j. Skeleton (Back and front views)
   k. Skeleton (head)
   l. Lungs
   m. Endocrine System.

ANATOMY AND PHYSIOLOGY

QUIZ # 1

Name: ______________________

1. Why are we studying Anatomy and Physiology?

   A.
   B.
   C.
   D.

2. Diagram a cell and label three (3) parts of it.

3. Define the following:

   Cell:

   Tissue:

   Organ:

   System:

4. How many systems are there in the human body?

5. List four (4) functions of the Skeletal System.

   A.

   B.

   C.

   D.

6. Where is the femur located?

7. What are muscles and what do they do?

8. Describe what happens when muscles are not used.

9. Diagram a skeletal muscle and label its parts.

ANATOMY AND PHYSIOLOGY

QUIZ # 2

Name: ____________________

1. Diagram the digestive system and label organs.
2. What is Peristalsis and where does it occur?
3. Why is digestion necessary?
4. Is it true that there are no bacteria in the digestive system of a healthy human being?
5. Where is bile manufactured and where is it stored?
6. What is the location and approximate size of the heart?
7. What does the heart do?
8. Trace a drop of blood from the inferior Vena Cava to the Aorta. Name structures and parts of the heart involved. (Draw a diagram; it will be very helpful.)

ANATOMY AND PHYSIOLOGY

QUIZ # 3

Name: ______________________

1. Diagram and name the major parts of the respiratory system.

2. What is the function of the respiratory system?

3. What are alveoli, where are they and what do they do?

4. Name 3 diseases of the respiratory system.

5. Diagram and name the major parts of the urinary system.

6. What is IVT?

7. What is urine and how is it made?

8. A major muscle in the body is the DIAPHRAM. Why is it so important?

9. Is it true that since blood circulates through vessels in the kidneys, the kidneys are organs of the circulatory system?

ANATOMY AND PHYSIOLOGY

QUIZ # 4

Name: ______________________

1. Name the three separate systems that make up the NERVOUS SYSTEM:

   A.

   B.

   C.

2. The Central Nervous System is composed of the ______________________ and the ______________________.

3. What is a SYNAPSE?

4. The scientific name for a nerve cell is ______________.

5. Define hormone:

6. What hormone is needed in diabetic patients and where is it made?

   A.

   B.

7. What is an Endocrine Gland and name three:

ANATOMY AND PHYSIOLOGY

QUIZ # 5

Name: ______________________________

1. **Organ which produces**

   A. **Egg** ____________________.

   B. **Sperm** ____________________.

2. **Organ which transports food and oxygen to fetus** ____________________.

3. **Name two Venereal diseases**

   1. ________________________.

   2. ________________________

4. **Name two diseases of pregnancy.**

   1. ________________________

   2. ________________________

5. **What is function of Fallopian Tube?** ______________________________________.

ANATOMY AND PHYSIOLOGY

QUIZ # 6

Name: ______________________________

1. **What is sperm and where is it formed?**

2. **What are ova and where are they formed?**

3. **What is a tubal pregnancy?**

4. **The uterus is a thick muscular organ of the female reproductive system. What purpose does it serve?**

5. **What is syphilis?**

6. **Tell in your own words what happens to the female reproductive system during menstruation.**

7. **Name two venereal diseases and tell how they are transmitted (spread).**

8. **Name the senses.**

9. **The _________ nerve carries stimulation from the eyeball to the brain.**

10. **Taste buds are located on the _______________.**

ANATOMY AND PHYSIOLOGY

QUIZ # 7

Name: ______________________________

1. What is the COMMUNITY HEALTH AIDE PROGRAM?

2. What is ANATOMY?

3. What is PHYSIOLOGY?

4. Define: a. Cell -

   b. Organ -

5. List two functions of the skeletal system:

   a.

   b.

6. Describe what happens when muscles are not used.

7. Digestion begins in the ___________.

8. The ____________ is the muscle that expands the thorax and separates the abdominal contents from the chest contents.

9. Red blood cells are formed in the ______________ of the ________________ system.

10. What are alveoli?

11. Draw a diagram of the heart and name the four cavaties.

12. The __________ nerves sends sound vibrations to the brain.

13. How do cells multiply?

QUIZ # 7 (Continued)

14. During respiration ______________ is taken into the blood stream in the lungs while ________________ is released from the blood stream.

15. __________ is a hormone needed in diabetic patients.

16. A fetus is located in the ____________ of a pregnant woman.

17. The Pituitary, Thyroid and Adrenal glands are parts of the ______________ system.

18. Name two diseases of the Respiratory system.
    a.
    b.

19. The scientific name for a nerve cell is ________________ .

20. The renal vein carries blood away from the ______________ .

21. What is a hormone?

22. Since the eyeball is hollow it can burst very easily when hit with a slight blow. (True or False)

23. Where are the Adrenal glands located?

24. List two functions of the Circulatory system.
    a.
    b.

25. Is it true that there are no bacteria in the digestive tract of a healthy person?

26. Diagram a cell and label 3 parts of it.

27. Where is bile manufactured?

28. The ________________ , ________________ and ____________________ nervous systems make up the NERVOUS SYSTEM.

29. Is it true that since blood circulates through vessels in the kidneys, the kidneys are part of the circulatory system?

30. A ______________ is the point where one nerve cell connects to another.

QUIZ # 7 (Continued)

31. What is the approximate size of the heart?

32. What is peristalsis?

33. List two functions of the muscular system:

a.

b.

34. How many systems are there in the human body?

35. The brain and spinal cord compose the __________ nervous system.

36. Where is urine produced?

37. There are three kinds of joints in the skeletal system. Name two:

a.

b.

38. Is it true that the iris of the eye is a muscle?

39. How is venereal disease transmitted from one person to another?

40. Name two places in the body where osmosis takes place:

a.

b.

41. Where are the salivary glands located?

42. Where is bile stored?

43. Another name for tympanic membrane is ________________ .

44. Where are willi and why are they there?

45. Name two venereal diseases:

a.

b.

QUIZ # 7 (Continued)

46. Name two places where peristalsis occurs:

    a.

    b.

47. What does the heart do?

48. The pharynx is part of the ____________ system.

49. What maintains the equilibriem of the body?

50. What is a "black eye"?

51. What is tissue?

52. There is hydrochloric acid in the stomach. (True or false)

53. How do cells multiply?

54. The absorption of food materials for use by the body takes place in the __________ .

55. Smell is received by receptors located in the ____________ membranes of the nose.

56. Name two diseases of the skeletal system:

    a.

    b.

57. How many spermatozoa are needed to fertilize an ovum?

58. Why does the eye produce tears?

59. List two reasons why it is so difficult to know exactly how many people (and who) have venereal disease:

    a.

    b.

60. Taste buds are located on the ______________ .

QUIZ # 7 (Continued)

61. **Diagram a muscle and label three parts of it.**

62. **What does contaminated mean?**

63. **The breakdown of complex food into simple food that can be used by the body is called ______________________.**

64. **What is the "backbone" composed of?**

65. **Diagram the digestive system and label the major organs.**

PART III

EPIDEMIOLOGY

PART III — EPIDEMIOLOGY

SECTION A – INTRODUCTION TO EPIDEMIOLOGY

The purpose of this lecture is to acquaint the student with meaning and importance of epidemiology in the control, prevention and treatment of disease

1. Meaning of the Word Epidemiology

a. Epi - upon

b. Demos - the people

2. Application

a. Study of the frequency and distribution of disease in a group of people.

b. Traditionally concerned with infectious disease. More recently concerned with other diseases as well.

c. More concerned with how the disease effects all the people or large numbers of people than with how it effects one person.

d. Much can be learned about disease from epidemiology.

  (1) Nature of the disease

  (2) How the disease spreads

  (3) Who is likely to get this disease? (High-risk group)

  (4) How can we protect the high risk group?

  (5) Can we prevent the effects of the disease.

    (a) Stop the disease from happening.

    (b) Stop the disease from doing permanent damage.

    (c) Repair damage already done.

3. Factors in Spread of Communicable Disease

a. Communicability (Leprosy vs Smallpox)

b. Virulence (Influenza)

3. Factors in Spread of Communicable Disease (Continued)

   c. Inapparent infection (Viral Hepatitis, Polio)

   d. Carrier (Typhoid, Diphtheria)

   e. Immunity

      (1) Group (Smallpox among Mandan Indians)

      (2) Host (Edward Jenner - Cowpox - Smallpox)

         (a) Natural

         (b) Acquired

         (c) Active

         (d) Passive

      (3) Host reaction. (Blindness in prematures)

SECTION B – INTRODUCTION TO PARASITOLOGY

The purpose of this lecture is to provide the student with a basic understanding of parasitic organisms and the nature of parasitic diseases.

1. Origin of parasites is unknown but are ancient

   a. Parasite - An organism dependent upon another; an organism which lives on or within and at the expense of the host.

      (1) Kinds of parasites (All living things have parasites)

         (a) Ectoparasites - infect the host (examples: fleas, lice, ticks, mites)

         (b) Endoparasite - infect the host (examples: bacteria, protozoans)

         (c) Human Parasites

            i. Pathogenic - cause harmful modifications in host, therefore cause disease

   b. Host - an organism which harbors a parasite

      (1) Kinds - human host

         (a) Definitive (final) - man is called a final host because a parasite reaches its "utopia" in man.

   c. Parasitism - the relation that exists between parasites and their host. (The host-parasite relationship)

2. Major Groups of Human Parasites

a. Plant parasites of man

- **(1) True bacteria**
- **(2) Mold-like bacteria (example: T.B., Diphtheria)**
- **(3) Spirochaetes**
- **(4) Fungi**
- **(5) Rickettsial**
- **(6) Viruses**

b. Animal parasites of man

- **(1) Protozoa**
- **(2) Helminths (worms)**
  - **(a) Nematodes (roundworms)**
  - **(b) Cestodes (tapeworms)**
  - **(c) Trematodes (flukes)**

c. Arthropods (cause or transmit human disease) example: mosquitoes.

3. True Bacteria - microscopic, unicellular, colorless plants which reproduce by simple binary fission.

a. Structure

- **(1) Individual Cell**
  - **(a) Coccus (i) - round**
  - **(b) Bacillus (i) - rod shaped**
  - **(c) Spirielum (a) - spiral shaped (NOT SPIROCHAETI)**
- **(2) Cell Groupings**
  - **(a) Diplo - occurs in pairs (example: diplococcus)**
  - **(b) Strepto - occurs in chains (example: streptococcus)**
  - **(c) Staphlo - occurs in clusters (example: Staphlococcus)**

3. True Bacteria (Continued)

b. Size - measured in microns (μ)

(1) Bacteria are approximately 1 micron in diameter compared to a red blood cell which is about 7-8 microns in diameter.

c. Motility - cover of locomotion (movement through liquids)

(1) None of the cocci have their own power of locomotion.

(2) Approximately 1/2 of the bacilli have their own power of locomotion.

(3) All of the spirilla have their own power of locomotion.

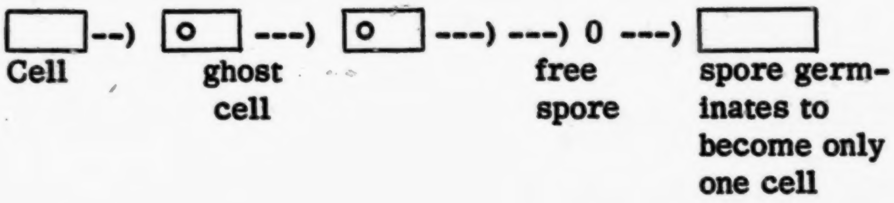
(4) True movement - called vital movement; this movement under own power.

(5) Brownian movement (non-vital)

d. Spore formation - changing into a highly resistant (resting) body capable of later germination - is not a means of reproduction

(1) Possessed by certain bacilli only. Example

Example:



(example: botulism - food disease)

The spore is resting and is highly resistant to outside factors. . .i.e. resistant to:

(a) Heat - therefore need sterilization to kill it.

(b) Dryness - some last for 30 years

(c) Chemicals

e. General Physiology

(1) Reproduction

(a) Type - binary fission i.e. one organism divides to form 2, 2 to 4 etc. (asexual - don't need a male and female cell to reproduce)

(b) Rate - very rapid, multiply so rapidly that they overwhelm host.

(c) "Post-fission movements" - role in colony formation, example: smooth, rough, elevated, subsurfaced, spreading.

3. True Bacteria (Continued)

e. General Physiology (Continued)

(2) Food requirements

(a) Self - (autotrophic) - energy derived from simple inorganic compounds (example: sulfurate bacteria only need S (sulfur)

(b) Many (heterotrophic) - energy derived from complex compounds

i. Live on dead material - saprophytes

ii. Live on living matter - parasites

(3) Activity

(a) Bacterial enzymes - destroys blood, tissue, etc.

(b) Small size - Bio chemical activity is great because it takes place at surface of the cell and the bacteria are all surface therefore acts as powerful chemical reagents.

(4) Three reasons why bacteria are important:

(a) Rapid multiplication

(b) Enzymes

(c) Powerful chemical reagents

(5) Presence of poisonous products (toxins)

i. Endotoxins - poisons within the cell.

ii. Exotoxins - poisons given off by a living cell.

f. Influence of the environment upon the growth of bacteria (does not include food)

(1) Moisture - is required, a saturated atmosphere is optimum

(2) Light is harmful

(3) Temperature - for human parasites the human body temperature is ideal (98.6^{0} F)

4. The Host (Man)

a. Sources of infection, means of transfer

(1) Those that harbor parasites (reservoirs of infection for community)

(a) Typical case of infection (not as dangerous as other because the person is ill)

4. The Host (Man) (Continued)

a. Sources of infection, means of transfer (Continued)

(b) A typical case of infection (more dangerous because although the person may be ill, he doesn't show all the symptoms)

(c) Carrier (is most important source of infection)

i. Convalescent - not too dangerous because health authorities know he was sick.

ii. Health (chronic) - VERY DANGEROUS because this individual doesn't show symptoms and he also develops an immunity to the organism

(2) Principle avenues of parasitic transfer (modes of transmission)

(a) Congenital (least important) - mother to fetus in the uterus

(b) Soil-borne (example: tetanus, typhoid)

(c) Water borne

(d) Milk borne

(e) Food borne

(f) Arthropod borne (insects)

(g) Personal contact (majority of communicable disease)

i. By direct body contact (VD)

ii. Contaminated hands

iii. Contaminated "fomites" (def)

iv. Droplet infection

b. The reaction of the body to infection

(1) External defense (outside of tissue)

(a) Skin

(b) Mucous membrane

(c) Natural secretions (HCL in stomach, tears)

(d) Other body barriers - (ciliated cell in respiratory tract)

4. The Host (Man) (Continued)

   b. The reaction of the body to infection (Continued)

      (2) Internal defenses - non-specific

         (a) Bactericidal power of "mammal" blood

         (b) Increase of white blood cells

         (c) Increase of cert in other cells (phagocytes)

         (d) Inflammation - is a local reaction to any agent that injures tissue. example: boil

      (3) Internal defenses - specific

         (a) Formation of anti-bodies

5. Skin Diseases (many)

   a. Non-infectious

   b. Infectious (many)

      (1) Staphlococci

         (a) Very dangerous because these bacteria are everywhere including on the skin and they grow well at room temperature.

         (b) Are resistant to coldness and drying out

         (c) High capacity to cause disease

            i. Boils

            ii. Osteomyelitis

            iii. Food poisoning

            iv. Atitis media (ear infection)

   c. Prevention

      (1) Good physical condition

      (2) Good personal hygiene

5. Skin Diseases (Continued)

- d. Tetanus
  - (1) Distribution is very wide (come from intestines of horses)
  - (2) Transmission to man:
    - (a) Spore in soil - driven into deep wounds - spores germinate and cause infection if dead tissue present and there is no oxygen (anaerobic bacteria)
  - (3) Clinical features of the disease
    - (a) Muscles contract due to destruction of nerves - lockjaw
  - (4) Treatment - antitoxin
  - (5) Prevention
    - (a) Care of wounds
    - (b) Antitoxin after exposure
    - (c) Immunization with toxoid

6. Infections of Mouth and Throat Are:

- a. Harmless bacteria
- b. Potentially harmful bacteria
  - (1) Staphylococci
- c. Harmful bacteria
  - (1) Streptococci
    - (a) Scarlet fever
      - i. Transmission - milk, fomites, droplet infection (carrier rate is high)
      - ii. Outstanding clinical features - nausea, vomiting, severe sore throat, rash
      - iii. Immunity - Dick (test for susceptibility)
      - iv. Prevention
        - (1) Use only pasteurized milk
        - (2) Vaccinations (but are toxic)

6. Infections of Mouth and Throat Are: (Continued)

c. Harmful bacteria (Continued)

(2) Diphtheria

(a) Transmission - pus, milk, fomites, droplet infection (carrier rat high)

(b) Outstanding clinical features - fever, dark spots on throat.

(c) Immunity - Schick test for susceptability; bact. diag. by throat swabs.

(d) Prevention

i. Use only pasteurized milk

ii. Vaccination

7. Infections of Intestinal Tract

a. Food Infection

(1) Salmonella

(a) Spread by way of food contaminated with this organism. Especially in food of high protein content (examples: fish, cheese, meats)

(b) Carriers - are very important in the spread of these bacteria, i.e.: cooks and food handlers and animals such as rats, poultry, etc.

(c) Some symptoms - same as 2 under staphlococcus poisoning, however, with fever.

(d) Prevention

i. Thorough cooking of food just prior to serving.

ii. Good sanitation control around food.

b. Food Intoxication

(1) Staphlococcus aureus

(a) Spread by way of food contaminated with the exotoxin of this bacteria. (exotoxin is heat stable)

i. Especially in pastries and other "carbohydrates".

(b) Some symptoms - sudden vomiting, abdominal pain, diarrhea, no fever.

b. Food Intoxication (Continued)

(1) Staphlococcus aureus (Continued)

(c) Prevention

i. Refrigeration of food

ii. Care in preparation and serving of food (CLEAN HANDS)

(2) Botulism

(a) Spread by food contaminated with the exotoxin of the clostridium bacteria.

(b) This exotoxin is destroyed by heating (boiling) the food for at least 5 minutes.

(c) Some symptoms - person becomes very weak within 24 hours after eating the contaminated food, there is difficulty in swallowing, then there is paralysis (the toxin acts on the nerves). Approximately 65% of the people who get this die. Is a difficult disease to diagnose.

(d) Prevention

i. Education of the public to take proper precautions when home canning. (no cold pack, use pressure cooker to kill spores)

ii. Thorough cooking of foods because toxin can be destroyed by heat.

c. Typhoid Fever

(1) Salmonella Typhose (is limited to man)

(a) Spread by human feces, sometimes urine, of carriers and cases

Spread by 6 Fs: Feces, fingers, fluids (milk, water), foods, fomites and flies.

(b) Some symptoms: fever, red spots on skin (little hemorrhages)

(c) Prevention

i. Drink only pure water and milk

ii. Sanitary sewage disposal

iii. Good personal hygiene

iv. Fly control

v. See the 6 Fs

vi. Control of carriers

7. Infections of Intestinal Tract (Continued)

d. Parathyphoid Fever (see typhoid fever)

e. Bacillary dysentery (Shigellosis)

(1) Shigella bacteria (non-motile)

(a) Spread - see typhoid fever

(b) Some symptoms - diarrhea with some blood, mucous and pus, fever, cramps

(c) Prevention - esp. personal hygiene, see under Typhoid fever

8. Infectious Diseases of the Respiratory Tract

a. Pneumonia is a diplococcus organism

(1) Still important cause of death especially in very young and very old.

(2) Definition - inflammation of the walls of the alveoli (air sacs)

(3) Spread by direct contact with infected persons; droplet infection very important.

(4) Some symptoms - sudden onset with chill, high fever, pain in chest, cough.

(5) Prevention - avoid overcrowding especially in sleeping quarters; maintain health (so resistance to disease is high)

b. Tuberculosis

(1) Bacillus - see slide demonstration found in man, birds, fish, cattle.

(a) Discussion

(b) This disease infects the lungs and can infect any other part of the body. Pulmonary (lung) accounts for 90% of the deaths from TB in the U.S.

(c) Spread by direct contact with "open" cases, droplet infection kissing, etc. (close contact over a long period of time)

(d) Symptoms

(e) Prevention

i. Case finding (more on this later)

ii. Isolation in sanitorium

8. Infectious Diseases of the Respiratory Tract (Continued)

c. Pertussis (whooping cough) (bacillus) is not a mild disease; there are approximately 3,000 deaths reported per year in the U.S. because of this disease.

(1) Spread by way of discharge from larynx and bronchi of cases, droplet infection etc.

(2) Some symptoms - "Head cold", acute bronchitis, characteristic cough (not always present), fever, nervous - complications can be pneumonia.

(3) Prevention

(a) Protect very young from cases

(b) Vaccination early (2-3 months) - more on this later

d. Meningitis - is inflammation of the membranes of the brain and spinal cord.

(1) Epidemic cerebrospinal meningitis - caused by diplococcus

(a) Spread by direct contact with cases and for carriers by droplet infection.

(b) Some symptoms - sudden onset of nausea, vomiting, headache, high fever, rash, later - stiff neck.

(c) Prevention - avoid overcrowding especially in sleeping quarters.

9. Animal Parasites of Man

a. Description

(1) Protozoa - one celled animals

(2) Metazoa - many celled animals

b. Nematode (worm) diseases of man - description: Microscopic, round, separate sexes, reproductive system well developed.

(1) Ascaris lumbricoides - Large round worm: Disease is called ascariasis. Is most common worm disease in human, especially in children because of poor hygiene.

(a) Life cycle: - female 12" - 18" long, male 8" - 10" long. Live unattached in lumen of intestine and live on semidigested food of host. . .when mature the worms breed (copulate) & female lays eggs (oviposits). 200,000 eggs per female per day. Eggs are 1 cell and are passed in the stool. Eggs develop in soil (2-3 weeks) as long as there is shade and moisture and grow into the infective stage. Then, the eggs are ingested and the cycle continues inside man: Eggs hatch in small intestine - larva penetrate intestinal wall and go to circulatory system to heart to lung (can damage lung) and grow for weeks - migrate under their own power to upper digestive tract and are swallowed - to intestine and become sexually mature in 60-90 days -- live for about 90 days.

9. Animal Parasites of Man (Continued)

b. Nematode (worm) diseases of man (Continued)

(1) Ascarsis lumbricoides (Continued)

(b) Symptoms and pathology

i. During migration of the larva it can do damage to lungs, hemorrhage, cough, fever, etc.

ii. When adult worms in intestine of children, the children usually show nervousness.

iii. Danger from abnormal migrations

iv. Anemia

(c) Prevention - Education and Sanitation

(2) Whipworm (trichuris triahuria) - discussion

(3) Hookworm - no concern on Pine Ridge Reservation

(4) Threadworm - (strangyloides steroralis) - discussion.

(5) Pin Worm - (enterobius vermicularis) is most common parasitic worm in the U.S.

(a) Life cycle - adults attached to mucosa of large intestine. . .copulate. . . males pass from body and females migrate (crawl) from body via anus. . . crawl on perineum and deposit eggs (11,000 eggs per female - eggs are sticky and infective) itching is intense and scratching leads to reinfection (hand to mouth infection). (infection of others - via contaminated food, air, etc.) eggs ingested - hatch in small intestine - to large intestine. . .become adults in 2-3 weeks.

(b) Some symptoms

i. When adults are in large intestine there is irritation of tissue. Also, there are nervous disorders due to the toxic effects of the worms by-products.

ii. When the worms are on the perineum there is itching and scratching can lead to secondary infection.

iii. Abnormal wandering of worms in girls (to the vagina) produces vaginitis.

iv. Anemia

(c) Prevent re-infection of individual by:

i. Cut and clean fingernails

ii. Don't put many children in same bed.

iii. Zinc oxide prevents itching

iv. Good personal hygiene practices

9. Animal Parasites of Man (Continued)

b. Nematode (worm) diseases of man (Continued)

(6) Trichiniasis (Formerly - Trichinosis) (trichinella spiralis)

(a) Life cycle - man infected by ingested larva (encysted in muscles of pig) cyst digested in stomach liberating the larvae - small intestine - penetrates tissue - adults in 2-3 days and breed - ♀♀ larvaposits (1500 larvae /♀/ several weeks) - circulation system - heart - lungs - heart - systemic circulation - only those that reach striated muscle encyst - the cells of the host actually form a cyst around the larvae (15-17 days) - calcification of cyst after 6 months (man is a "blind alley") for this parasite)-- explanation.

(b) Pathology and symptoms

i. 1st stage - 1 to 10 days - period of establishing adults in intestine therefore intestinal damage with nausea, vomiting, diarrhea (is difficult to diagnose)

ii. Second stage - 7-14 days - first wave of larva in circulatory system results in swelling around eyes and lesions where larva enter tissue (heart and central nervous system)

iii. Third stage - after 14 days, myosites (inflammation of muscle fibers) with muscular pain.

Five per cent of cases fatal - all depends on the number of larva injected.

(c) Prevention

i. Education of public to thoroughly cook all pork

ii. Elimination of feeding raw garbage to hogs (explain: hogs)

(7) Cestoda - tape worms

(a) Description

i. Flat worms, hemaphroditic, body made up of sections, has a big head.

(b) Fish tapeworm (3-8 meters long)

(c) Hog tapeworm (2-8 meters long)

9. Animal Parasites of Man (Continued)

b. Nematode (worm) diseases of man (Continued)

(7) Cestoda - tape worms (Continued)

(d) Beef tapeworm (taenia saginate) (5-10 meters long)

i. Life cycle: adult attached to upper small intestine and eggs are passed in the stool (each segment has 80,000 eggs) Eggs ingested by cattle (intermediate host) and hatch in the small intestine of cattle and the embryos go into the blood system of the cattle, go into the muscles and develop into larva stage. (cyst) Man is infected by eating rare beef. In man, the larva hatch and attach to the intestinal wall. The worm becomes an adult in 8-10 weeks and lives a long time.

ii. Some symptoms:

- Sometimes anemia

iii. Prevention:

- Adequate sewage disposal
- Thorough cooking of beef

(e) Dwarf tapeworm (hymenolepis nana) (1/2 to 3 inches long)

i. Life cycle: numerous adults attached to small intestine infective eggs in stool (eggs are fully developed when they are in the stool) - eggs ingested by a person - eggs hatch in small intestine - embryos go to tissue - become larva in 4 days - go back to intestine and attach to wall and become adults in 2-3 weeks. Adults worms live for several months. No intermediate host necessary

Note: The above is called a direct cycle. This tapeworm can also have an indirect cycle by developing in the larva stage of certain insects. Example: beetles, meal worms

ii. Some symptoms:

- A hearing infection in children can result in dizziness, abdominal pain, diarrhea, etc.
- Some anemia

iii. Prevention:

- Good personal hygiene very important.

9. Animal Parasites of Man (Continued)

b. Nematode (worm) diseases of man (Continued)

(8) Intestinal protozoa

(a) Ameba - E. Histolytica - (causes amebiasis)

i. Life cycle - certain forms of the parasite is injested and develops in the small intestine. Then the parasite invades the large intestine and destroys the tissue (ulcers) and some go to the liver (liver amebiasis)

ii. Some symptoms

- Diarrhea

- Tender liver (pain)

- Sometimes fever

iii. Prevention

- Drinking only pure water
- Sanitary disposal of wastes
- Fly control
- Good personal and home hygiene
- Know and control carriers
- Education

(b) Ciliates - discussion

(c) Flagellates - discussion

10. Medical Entomology - the study of arthropods

a. Characteristics of arthropods

(1) Bilateral symmetry

(2) Exoskeleton

(3) Bodies segmented with paired joined appendages

10. Medical Entomology (Continued)

b. How arthropods affect the health of man

(1) Directly - by poisonous hairs, bites, stings, etc.

(a) Dermatitis (inflammation of skin)

(b) Poison injections

(2) By invading and destroying tissue

(a) Accidental

(b) Deliberately (example: scabies)

(3) By causing fear (Entomophobia)

(4) Indirectly - by transmission of disease

(a) Mechanical: Example - housefly contaminates our food.

(b) Biological: Example: mosquito and fly bites and injects disease germs in our blood.

11. Our Concern Here·

a. Mites - scabies, chiggers

b. Ticks - Spotted fever, tularemia, relapsing fever.

c. Spiders - Black widow bite (5% of cases are fatal)

d. Scorpions - poisonous sting (similar to strychmine) neurotoxin produces pulmonary edema, coma, death.

e. Centipedes - Bite and is painful (all centipedes are dangerous)

f. Fleas - Sylvatic plague, endemic typhus fever.

g. Lice - Head lice, body lice, crab lice (pediculosis - lice infestation)

h. Cockroach - mechanical transmission of disease

i. Mosquitoes - encephalitis, etc.

j. Biting flies - (example: deer fly), tularemia, anthrax, etc.

k. Other flies - mechanical transmission of disease example: salmonella, myiasis.

SECTION C – EPIDEMIOLOGY OF ACCIDENTS

The purpose of this lecture is to provide the student with an understanding of the importance of cause and effect relationships in accidents with respect to prevention and control.

1. Extent of Problem
2. Problem by Major Group
    a. Fractures
        (1) Cause: motor vehicle, falls, etc.
        (2) Treatment: general
        (3) Prevention: general
    b. Lacerations:
        (1) Cause, treatment, prevention - general
    c. Effects of Poisons
        (1) Cause
            (a) Food and Drugs
            (b) Petrolatum Products, Acids and Solvents.
            (c) Gases and Vapor
        (2) Treatment
            (a) induce vomiting
            (b) do not induce vomiting
            (c) air
        (3) Prevention
            (a) Storage - place, type container
    d. Burns
        (1) Cause
            (a) Fire, Explosion
            (b) Hot Solvents, Liquids and Steam
            (c) Other

2. Problem by Major Group (Continued)

   d. Burns (Continued)

      (2) Treatment: general

      (3) Prevention: general

   e. Others: General

3. Suggestions on how the program can help

   a. Talk safety

   b. Use of visual aids

   c. Picking up unused medications

   d. Others

SECTION D – EPIDEMIOLOGY OF SKIN INFECTIONS AND ECTOPARASITES

The purpose of this lecture is to provide the student with a working knowledge of how to recognize and control skin infections and ectoparasites.

1. Impetigo

a. Impetigo is a skin disease characterized by inflammation or redness and pustules (small blisters with pus). Usually after the first stage, a heavy crust appears. It is infectious. It spreads from one person to the other, usually by dirty hands, washcloths, towels, unclean wash basins and showers. The person helps spread it over his own body by scratching with dirty hands and fingernails.

2. Headlice or Pediculosis

a. Identifying Information:

   (1) Headlice are shall gray, living insects which live in the hair and lay their eggs (or nits) on the hair, usually behind the ears and nape of neck and along hairline.

   (2) The nits (or eggs) are small fixed, oval, white bodies seen by the naked eye which hatch into lice.

   (3) Headlice live by biting the child and sucking small amounts of blood. This causes the child to scratch, producing sores or infections resulting from dirty fingernails.

2. Headlice or Pediculosis (Continued)

b. Spread by:

(1) Close contact between children

(2) Sharing of hats, combs and brushes

(3) Keeping all hats, combs and brushes together.

c. Discovery and Prevention

(1) Enrollment inspections, checking each child after he returns from home.

(2) Thorough bath inspections

(3) Check all companions. Treat all children with headlice at the same time.

3. Colorado Tick Fever, Viral

a. Identification - An acute febrile disease with an erythematous rash; a brief remission is usual, followed by a second bout of fever, each of 2 or 3 days' duration. The disease is characteristically mild but may be severe in children, occasionally with a resulting encephalitis or tendency to bleed; deaths are uncommon. One of the group of Anthropod-Borne Viral Fevers.

Laboratory confirmation is preferably by isolation of virus; complement fixing and neutralizing antibodies do not appear until 2 or more weeks after onset.

b. Occurrence - Only known area of occurrence is the United States; and present there in the states of Washington, Oregon, California, Nevada, Utah, Idaho, Montana, Wyoming, Colorado and South Dakota. Virus has been isolated from D. andersoni in British Columbia and in New Mexico. The disease is most frequent in adult males, but commonly affects children and women; seasonal incidence corresponds to greatest tick activity; endemic distribution, and a distribution, and a common disease in much of the affected area.

c. Infectious Agent - The virus of Colorado tick fever.

d. Reservoir and Source of Infection - Reservoir is small mammals, of which ground squirrels and the porcupine have been identified, together with nymphal and larval ticks. Source of infection is the adult vector tick.

e. Mode of Transmission - Immature ticks, Dermacentor andersoni, acquire infection through feeding on infected animals during viremia; they remain infected through the various moults and transmit virus to man by feeding as adult ticks.

f. Incubation Period - Usually 4 to 5 days.

3. Colorado Tick Fever, Viral (Continued)

g. Period of Communicability - Under natural conditions not directly transmissible from man to man; the wild life cycle maintained by larval and nymphal ticks is the important consideration. Ticks remain infective throughout life. Virus is present in man during febrile course, from 1 to 10 days after onset.

h. Susceptibility and Resistance - Susceptibility apparently universal. Second attacks are unknown; experimental reinfection unsuccessful.

i. Methods of Control

(1) Preventive measures

(a) Control of ticks

(b) No available vaccine

(2) Control of patient, contacts, and the immediate environment

(a) Report to local health authority: In endemic areas (USA); in most states and countries not a reportable disease.

(b) Isolation: None

(c) Concurrent disinfection: None; ticks on patient should be destroyed.

(d) Terminal disinfection: None

(e) Quarantine: None

(f) Immunization of contacts: None

(g) Investigation of contacts and source of infection: Identification of ticks and tick infested areas.

(h) Specific treatment: None

(3) Epidemic measures: Not applicable.

(4) International measures: None

4. Scabies or Itch

a. Identifying Information: Scabies (itch) is a skin condition which is highly contagious and spreads quickly from person to person. It is caused by an extremely small live insect which burrows under the skin to lay eggs. The insect dies after the eggs are laid. The eggs hatch in four to eight days. The itch mite burrows into skin producing a small elevated gray trail. Infested areas are commonly found on the inner sides and between the fingers, on the wrists, back of the hands, arm pits, the abdomen, inner sides of the thighs, and buttocks. Intense itching follows infection. Infections spread from vigorous scratching with dirty fingernails. Scratching usually occurs at night.

5. Selected Communicable Diseases

- a. Chicken pox
  - (1) Mode of transmission
  - (2) Prevention
  - (3) Symptoms
  - (4) Communicability
  - (5) Complications
- b. Ringworm
  - (1) Mode of transmission
  - (2) Prevention
  - (3) Symptoms
  - (4) Communicability
  - (5) Complications

SECTION E – EPIDEMIOLOGY OF ENTERIC INFECTIONS

The purpose of this lecture is to acquaint the student with the enteric infections common to their location and with method of prevention.

1. Enteric Infections on the Pine Ridge Reservation

- a. Health statistics for the Pine Ridge Reservation
- b. Program Plan for the Public Health Service

2. Enteric Infections

- a. Types of enteric disturbances
  - (1) infections
  - (2) poisons-parasite, etc.
- b. Causes of enteric infections
  - (1) bacterial infections
  - (2) virus and protozoa infections

2. Enteric Infections (Continued)

c. Transmission of enteric infections

(1) hand-to-mouth

(2) food and water contamination

(3) flies and rodents

d. Treatment of enteric infections

(1) symptomatic treatment

(2) specific treatment by physician

e. Prevention of enteric infections

(1) environmental sanitation

(2) personal hygiene

(3) health education

3. Summary

SECTION F – RESPIRATORY DISEASES

The purpose of this lecture is to provide the student with an understanding of respiratory diseases, their individual characteristics, mode of transmission and methods of treatment and control.

1. Review Part II, Section F - Respiration with respect to:

a. Cause

b. Transmission

c. Factors which influence transmission of respiratory diseases

d. Treatment

e. Prevention

2. Common Cold (Coryza)

a. Cause

(1) Many types of viruses - some known and some unknown.

b. Type of disease

(1) Acute catarrhal

(2) Sneezing, nasal discharge, and general malaise

2. Common Cold (Coryza) (Continued)

c. Occurrence of disease

(1) World-wide

(2) More cases during winter months in temperate zones

(3) More children have colds than adults

d. Reservoir of Infection

(1) Man - mucous from nose and throat

e. Mode of transmission

(1) Direct contact

(2) Indirect contact

(3) Droplet

f. Incubation period

(1) Between 12 and 72 hours, usually 24 hours.

g. Period of Communicability

(1) 24 hours previous to onset as late as 5 days after onset.

h. Susceptibility

(1) Universal

(2) No immunity built up

i. Prevention

(1) Partial isolation and good personal hygiene

(2) Good health habits to build up resistance.

3. Acute Febrile Respiratory Disease

a. Cause

(1) Various viruses some unknown, others known

b. Type of disease

(1) Acute with fever

(2) Involves all parts of the respiratory system

3. Acute Febrile Respiratory Disease (Continued)

   c. Occurrence of disease

      (1) Some as common cold.

   d. Reservoir of Infection

      (1) Man - mucous from nose and throat and probably intestinal tract.

   e. Mode of transmission

      (1) Direct contact

      (2) Indirect contact

      (3) Droplet

   f. Incubation Period

      (1) A few days to a week or more

   g. Period of communicability

      (1) Not known

   h. Susceptibility

      (1) Universal

      (2) Some immunity is built up.

   i. Prevention

      (1) Some vaccines used in military recruits

      (2) Good personal hygiene with partial isolation

      (3) Good health habits to build resistance

4. Influenza

   a. Cause

      (1) Influenza virus A and B and their subtypes which change frequently.

   b. Type of disease

      (1) Acute infectious disease of the respiratory tract.

      (2) Chills, fever, headache, muscle soreness, frequently coryza and sore throat.

4. Influenza (Continued)

b. Type of disease (Continued)

(3) Usually severe protracted cough.

(4) Complications frequently result

c. Occurrence of disease

(1) World-wide in pandemics, epidemics and sporadic cases.

(2) Influenza A occurs every 2 to 3 years

(3) Influenza B occurs every 4 to 6 years

(4) Usually occur in winter in temperate zone.

(5) Majority of cases in a given year are caused by a single type of virus.

d. Reservoir of Infection

(1) Man - nose and throat discharges

e. Mode of transmission

(1) Direct contact

(2) Indirect contact

(3) Droplet

(4) Probably droplet nuclei

f. Incubation period

(1) Usually 24 to 72 hours

g. Period of communicability

(1) About 3 days after onset.

h. Susceptibility

(1) Universal

(2) Some limited immunity built up

(3) Largest number of cases in children about ten years old.

4. Influenza (Continued)

i. Prevention

(1) Active immunization

(2) Communicable disease reporting

(3) Good personal hygiene and partial isolation.

(4) Good health habits to build resistance

5. Pneumonia

a. Cause

(1) Dipholococcus pneomoniae

There are over 300 different types and they cause 95% of the cases of pneumonia.

(2) Streptococcal 2 to 3%

(3) Klebsiella

(4) Staphylococcal

(5) Viruses, known and unknown

b. Type of disease

(1) Acute

c. Extent of Disease

(1) Lungs

(a) Lobar

(b) Bronchial

d. Occurrence of disease

(1) Common to most populations

(2) Most cases in young, old or weakened people.

(3) Usually sporodic, but epidemics do develop among dense populations such as army barracks.

(4) Most cases are in spring and winter in temperate zones.

5. Pneumonia (Continued)

e. Reservoir of transmission

(1) Droplet

(2) Direct Contact

(3) Indirect Contact

f. Incubation period

(1) May be from 1 to 3 days, but not proven.

g. Period of communicability

(1) Unknown

h. Suspectibility

(1) Persons with lowered resistance as exposure to cold, rain, etc., Physical and mental fatigue; and alcoholism

(2) Some immunity follows an attack.

i. Treatment

(1) Medication (Antibiotics, etc.)

(2) Bed rest

(3) Appropriate diet

(4) Oxygen as necessary

j. Prevention

(1) Avoid crowded conditions

(2) Good health habits to build up resistance

(3) Communicable disease reporting

(4) Isolation

6. Other Respiratory Diseases

a. Pneumonia secondary to measles

b. Psittacosis

(1) Cause - A large virus

(2) Reservoir of infection - Many types of birds.

6. Other Respiratory Diseases (Continued)

c. Q Fever

(1) Cause - Rickettsia burneti

(2) Reservoir of Infection - Animals and wood ticks

(3) Type of disease - Acute or chronic, pneumonitis

(4) Mode of transmission - Droplet nuclei, Infected animals, including milk.

d. Tuberculosis

(1) Cause

(a) Mycobacterium tuberculosis

i. Rod shaped bacillus

ii. Acid fast (waxen cover)

iii. 3 strains

- Human
- Bovine (Cow)
- Avarian (Bird)

(2) Type of disease

(a) Chronic

(b) Variable - succession of relapses and remissions

(3) Extent of disease

(a) Primary

(b) Pulmonary

i. Minimal

ii. Moderate

iii. Far advanced

6. Other Respiratory Diseases (Continued)

d. Tuberculosis (Continued)

(3) Extent of disease (Continued)

(c) Extra-pulmonary

i. Bone

ii. Meningitis (brain)

iv. Lymph nodes

v. Intestines

vi. Larynx

(4) Occurrence

(a) World-wide - deaths range from 5 to 100 per 100,000 people per year.

(b) In 1962 reported incidence in USA was 29 per 100,000 - deaths were 5.

(c) Highest number of cases in city versus country.

(d) Incidence increase with age.

(5) Reservoir of infection

(a) Man
(b) Occasionally cows

(6) Mode of transmission
(a) Contact

i. Direct

ii. Indirect

iii. Droplet

iv. Droplet nuclei

v. Ingestion of unpasteurized milk from infected cows

(7) Incubation period
(a) Primary infection
i. 4 to 6 weeks

d. Tuberculosis (Continued)

(7) Incubation period (Continued)

(b) Progressive pulmonary or extrapulmonary disease.

i. May be years

(c) 6 to 12 months after the infection is the most important

(8) Period of communicability

(a) As long as the tubercular bacillus is discharged.

(9) Susceptibility

(a) Under 3 years of age

(b) Races as Negroes, Irish, American Indian

(c) Persons with poor living conditions or malnourished

(d) Middle aged men

(10) Prevention

(a) Health education

(b) Medical, laboratory and x-ray examination of infected people, suspects and contacts.

(c) Early and continuous treatment

i. Medication (Chemotherapy)

ii. Rest

iii. Good diet

iv. Necessary surgery

v. Evaluation (periodic x-rays and laboratory studies)

(d) Hospitalization of communicable cases

(e) Mass tuberculin testing

(f) BCG vaccine

SECTION G – EPIDEMIOLOGY OF DENTAL DISEASES

The purpose of this lecture is to provide the student with an understanding of dental diseases as to their cuases, treatment and control.

1. Introduction

a. Dental disease, of one type or another, affects virtually every human being in the world. Always has --- but not necessarily "always will". Dental caries and periodontal disease occur so frequently that man, until recent years, tended to discount them as diseases per se. You, as a public health worker will be dealing with dental disease for the duration of your career, for dental health is a requisite to total health.

2. Common Dental Diseases

a. Dental Caries

(a) Carbohydrates (sugars) in the mouth
plus
Acid-Producing bacteria
yield
decalcification of tooth
enamel which leads to
decay.

(2) Transmission

(a) Although dental caries is bacterial in origin, it is neither infectious nor contagious.

(3) Treatment

(a) Restoration of the involved tooth (after removal of the carious lesion)

(b) Extraction of the involved tooth (after the decay has progressed into the pulp resulting in acute pulpitis)

(4) Prevention

(a) Stringent oral hygiene

i. Regular toothbrushing routine

ii. Regular dental floss usage.

(b) Routine professional care

i. X-rays

ii. Restoration

iii. Oral prophylaxis (tooth scaling and cleaning)

a. Dental Caries (Continued)

(4) Prevention (Continued)

(c) Fluoride therapy

i. Regular topical fluoride applications by a dentist.

ii. Fluoride intake in drinking water

iii. Fluoride supplement, tablets or liquid; for those with non-fluoridated drinking water.

(d) Control of diet

i. Low carbohydrate intake - This is effected by eliminating or limiting the very sweet and sticky foods such as candy, cookies, cake.

ii. High intake of foods providing mechanical cleansing action on the teeth such as celery, carrots, raw fruits, etc.

(5) Indices used in Caries experience

(a) DMF Rate - Expresses the average amount of caries in a group of persons. It is used only for permanent teeth and usually excludes third molars. It is best for examining people between the ages of 6 and 35.
D --- Number of decayed teeth.
M -- Number of missing teeth.
F --- Number of filled teeth.

(b) Def Rate - Expresses the average amount of caries in a group of persons. It is used only for deciduous (baby) teeth and is best for examining people between the ages of 3 and 8.
d --- Number of decayed teeth.
e --- Number of teeth that should be extracted.
f --- Number of filled teeth.

(6) General considerations regarding dental caries

(a) It is the second most common dental disease.

(b) It is common for decay to become naturally "arrested" in deciduous teeth, this phenomenon is comparatively rare in permanent teeth. Arrested decay is very dark brown, hard and shiny.

(c) Dental caries is much more common in molars and bicuspids than in incisors and canine teeth.

(d) Pregnancy does not increase the incidence of decay.

2. Common Dental Diseases (Continued)

a. Dental Caries (Continued)

(7) General considerations regarding fluoride therapy.

(a) Fluoridation of community water supplies is the key to caries prevention.

(b) The optimum concentration of fluoride in drinking water is one part/million.

(c) Fluoridated drinking water and topical fluoride applications yield dental benefits to the adult as well as to the child.

(d) Fluoride supplement taken by a pregnant woman passes the placental barrier yielding definite dental benefits to the unborn child.

(e) Fluoridation of community water supplies cost 9 /person/year. Less than the cost of the average candy bar, one filling's cost pays for 30 years of Fl.

b. Periodontal Disease - Affects all structures of the periodontium, eg. the gingiva (gums), the periodontal fibers (provide anchorage from the tooth to the surrounding bone), the peridental bone (the bone comprising the tooth socket) and the cementum of the tooth.

(1) Cause

(a) Calculus accumulations

(b) Lack of oral hygiene

(c) Malocclusion (crooked teeth)

(d) Overindulgence in alcohol and tobacco

(e) Diet deficiencies

(2) Transmission

(a) The role of bacteria in periodontal disease is not completely known. Although bacteria do certainly contribute to the affliction, the disease is not communicable.

(3) Prevention

(a) Stringent oral hygiene

(b) Routine professional care (especially oral prophylaxis)

(c) Fluoride therapy. This added benefit of fluoride has just been brought to light in the last few months.

(d) Orthodontic care for patients with malocclusion.

(e) Well balanced diet

2. Common Dental Diseases (Continued)

b. Periodontal Disease (Continued)

(4) Treatment

(a) Routine scaling and oral prophylaxis (for mild cases of gingivitis)

(b) Subgingival curettage (scaling the roots of the teeth)

(c) Gingivectomy (surgical removal of the involved gum tissue)

(d) Splinting of teeth.

(5) Indices used in periodontal disease experience.

(a) PMA Index - Has one disadvantage in that it doesn't measure the more severe types of periodontal disease.

(b) Periodontal Index - Provides accurate measurement of advanced, severe periodontal index.

(6) General considerations regarding periodontal disease.

(a) More teeth are extracted because of periodontal disease than because of tooth decay. (9 out of every 10 after the age of 35)

(b) It is the most common dental disease and is also the most common disease of man. Every person who has at least one tooth has some degree of periodontal disease. "A normal periodontium is not normal."

(c) "Trench mouth" is the lay term for acute necrotizing ulcerative gingivitis (or Vincent's Infection). It is a very severe, debilitating, possibly fatal form of periodontal disease. The main complication is systemic dehydration which results when the patient's mouth becomes so tender that he refuses liquid nourishment.

(d) Why so many teeth are lost to periodontal disease

i. Patients rarely realize that periodontal diseases are curable and that teeth can be saved.

ii. Too often non-dental professional people try to treat periodontal disease with "penicillin and salt water rinses."

iii. Periodontal diseases are usually painless in the early stages and progress slowly. This tends to make the patient delinquent in seeking professional help.

iv. The pathogenic significance of calculus is poorly appreciated.

2. Common Dental Diseases (Continued)

c. Traumatic injuries to the teeth and jaws

(1) Cause

(a) Automobile accidents

(b) Altercations

(c) Childhood accidents

(2) Prevention

(a) Seatbelts in automobiles

(b) Mouthguards for contact sports

(c) A "kind, tolerant and abiding nature."

(3) Treatment

(a) Open and closed reductions and fixations of fractures of the jawbones.

(b) Reimplantation of evulsed teeth

(c) Pulp-protection procedures for fractured teeth.

(d) Surgical repair of lacerated facial and oral tissues.

d. General considerations regarding epidemiology of dental diseases.

(1) The death rate for oral cancer is 3.4/100,000

(2) A cleft palate or cleft lip occurs 1/700 births.

(3) At least 50% of American population has some degree of malocclusion.

(4) Females are more prone than males to seek regular professional dental care.

(5) Tooth enamel is the hardest tissue in the body.

(6) There is no effective "vaccination" for dental disease.

(7) Referrals for malocclusion should be made whenever the condition is first seen, no matter what the age of the patient.

e. Some sample Public Health Prevention Dental Programs.

(1) Mouth protectors for football players.

(2) Fluoridation of community water supplies

(3) Oral hygiene school programs.

SECTION H – EPIDEMIOLOGY OF VENEREAL DISEASE

The purpose of this lecture is to provide the student with a working knowledge of venereal diseases, their effects on the human, prevention and control.

1. Movie - "Quarter Million Teenagers".

a. This is a movie consisting of 23 minute film encompassing what happens to a person who is infected with V.D. and how it affects the body and the person's future, etc., how V.D. is transmitted.

2. What is V.D.?

a. The venereal diseases are those diseases spread through sexual intercourse. The most prevalent and destructive of these diseases are Gonorrhea and Syphilis, which in total numbers and total potential damage outweigh our other communicable diseases.

3. Gonorrhea Symptoms in the Female and the Male

a. Most females, unfortunately don't get any warning of infection. They may not notice any pus and the slight pain on urination may be thought unimportant. The untreated female may notice no symptoms until the infection moves past the Cervix up the Uterus and into the Fallopian Tubes - which can cause sterility. If the infection spills into the abdominal cavity, she will require emergency hospitalization and possible surgery.

b. Male symptoms - The infected male first notices a thick discharge of pus from his penis and a smarting pain when he urinates. These warnings are noticed from 3-7 days after sexual relations with an infected person.

c. Treatment - See a doctor immediately - the cure, usually 3 or 4 shots of penicillin, is fast and sure.

4. Syphilis - The Tardy Killer

a. Syphilis infections, though fortunately fewer in number than gonorrhea (189 versus 1251 South Dakota cases 1963) can be even more damaging to the infected person.

b. Cause: The disease is caused by a small corkscrew shaped germ the Treponema pallidum. This germ is first found in a small sore, the chancre (in example) on the penis of the infectious male. The germ during intercourse will then be planted on the vaginal lips or the cervix of the female.

c. Symptoms: One dangerous aspect of Syphilis is the fact that early symptoms are slight and will disappear without treatment. The original chancre (lesion) of the primary stage is small, painless and, in the case of the female, usually hidden. The chancre will be followed by the secondary stage, with its slight body rash and fever, frequently unnoticed. These secondary symptoms, however, are occasionally severe and can include mouth sores and rash and sores about the sex organs and patchy loss of hair.

4. Syphilis - The Tardy Killer (Continued)

d. Latent Stage: (no symptoms) the healing of the secondary rashes marks the end of the infectious period and the start of the period of greatest danger to the infected person. The syphilis germ is now being spread through the blood system to every part of the body. Only a blood test will now detect the infection. Three or thirty years later Syphilis may cripple, blind or kill its unsuspecting victim.

e. Treatment: Syphilis, in any stage can be readily cured with penicillin (2 to 10 or more shots) however, destruction of nerve tissue, if the brain or spinal cord have been damaged, can't be repaired.

f. What is being done to control Syphilis: Because this disease is increasing throughout the country as well as in South Dakota, and because it spreads rapidly across State Lines, the United States Public Health Service through its Division of Communicable Disease is directing the various State Health Departments in a nation-wide program to first control and finally wipe out syphilis, the whole program starts to operate when a syphilis patient sees his doctor for treatment. A doctor reports the infectious case to the State Health Department. A Health Worker will then interview the patient to find out his contacts and these contacts will be traced and brought to examination and possible treatment. Last year in South Dakota we traced infections into twelve states. This case finding, is by law and medical ethics a completely confidential service - no secrets are revealed to anyone.

5. Epidemiology and How it Works

a. Why we interview

(1) Every case comes from somebody else.

b. Why is it important that contacts be brought in as rapidly as possible?

c. What can we, as a health team, hope to accomplish?

d. Can Syphilis be eradicated in our time?

e. Showing of Darkfield microscope to group and several slides of spirochete.

6. Thought To Remember When Working With V.D. Patients and Contacts

a. "It is not a crime to get it; it's a crime to keep it and pass it along to your friends. Remember you do not pass this along to your enemies."

SECTION I – REFERENCE BOOKS, PAMPHLETS, FILMS AND FORMS

The following materials were available and utilized in conjunction with lectures under the heading "Epidemiology."

1. Books

a. Communicable and Infectious Diseases, Mosby

b. Medical Clinics of North America, Saunders, Vol. 48, #3 (Syphilis and Other Venereal Diseases), May 1964.

1. Books (Continued)

   c. Taber's Cyclopedic Medical Dictionary, F.A. Davis

   d. That the Patient May Know, Saunders

2. Pamphlets

   a. "Home Care of the Mouth", American Dental Association, 222 East Superior St., Chicago, Illinois.

   b. Diarrhea, Cheyenne River Reservation, U.S. PHS, Eagle Butte, South Dakota

   c. "Outbreak of Early Infectious Syphilis in the Black Hills and Pine Ridge Indian Reservation of South Dakota" DHEW, PHS.

   d. "Tuberculosis From 18 to 80", National Tuberculosis Association.

   e. "How to Kill TB Germs" National Tuberculosis Ass'n.

   f. "Going Home", National Tuberculosis Association.

   g. "How Your Body Fights Tuberculosis", National Tuberculosis Association.

   h. "Tuberculosis - Facts In Picture Language", National Tuberculosis Association.

3. Films

   a. "The Infectious Diarrheas", CDC, color, 16 minutes

   b. "Quarter Million Teenagers"

   c. "Unseen Enemies", Shell Oil Company

4. Forms

   a. "Venereal Disease Epidemiology Report" PHS 2936, Rev. 7-62

   b. "Confidential Venereal Disease Report", South Dakota State Department of Health.

Name: ______________________________

1. What is a parasite?

2. What is an ectoparasite and name three of them:

   ECTOPARASITE -

   a.

   b.

   c.

3. What is a pathogenic parasite?

4. Is it true that every living organism has parasites?

5. Name three characteristics of bacteria:

   a.

   b.

   c.

6. Name three animal parasites of man: a) b)
   c)

7. Name two ways of killing bacteria.
   a) b)

8. What is scabies and how can it be prevented?

EPIDEMIOLOGY

Quiz # 2

Name: ____________________________

1. In your own words, what does EPIDEMIOLOGY mean?

2. You notice that there are ten cases of diarrhea in your community. What questions would you ask to find out whether these cases are tied together in an outbreak?

3. How can the transmission of ENTERIC INFECTIONS be stopped?

4. Name four ways that germs of respiratory diseases are transmitted from one person to another:

   a.

   b.

   c.

   d.

5. Name three things that will help to prevent tuberculosis.

   a.

   b.

   c.

6. Describe in your own words "body resistance against disease".

7. How could you, as a Community Health Aide, help a public health investigating team to solve an outbreak of disease in a community?

EPIDEMIOLOGY

Quiz # 3

Name: ____________________

1. There is nothing good about a house fly. True or False
2. An organism which lives on or within and at the expense of the host is a __________.
3. What is a spore?
4. Why do we consider accidents as health problems?
5. Tuberculosis is no longer a problem on the Pine Ridge reservation. True or False
6. A "cold" is caused by : (choose one)
    a. Very cold air entering the stomach through the nostrils.
    b. Many types of viruses
    c. Entamoeba histolytica
7. Name three octoparasites. a. b. c.
8. Name two venereal diseases. a. b.
9. ______________, ______________, and ____________________ are needed in order for bacteria to reproduce.
10. How could a Community Health Aide help solve the problem of an outbreak of diarrhea in a community?
11. Mosquitoes are parasites. T or F
12. Periodontal disease affects the: (choose one)
    a. villi of the s. intestine
    b. genitals
    c. mouth
13. The reservoir of infection for a cold is _____________.
14. "Hand to mouth" transmission is especially important in diseases of the _________.
15. Name five major health problems on the Pine Ridge reservation:
    a. b. c. d. e.
16. Pneumonia is no problem on the Pine Ridge reservation since public health nurses give immunizations to the people in the home. T or F

Quiz # 3 (Continued)

17. What causes a person to be susceptable to communicable diseases?

18. Q Fever is caused by ticks. T or F

19. What are dental caries?

20. Shigellosis is another name for bacillary dysentery. T or F.

21. Are staphlococci dangerous? If so, why?

22. How can a Community Health Aide help prevent pertussis on the reservation?

23. Many of the diarrheas could be prevented by good __________ __________.

24. Tell what you know about the "pin worm", (include how and where it affects humans and how it can be controlled).

25. What are anti-bodies?

26. Name at least 5 ways by which parasites are transfered to man:
a. b. c. d. e.

27. There is too much time spent on trying to control syphilis since the disease disappears after the sores heal. T or F

28. __________ and __________ are examples of food-borne diseases.

29. A cockroach is not important in public health since it does not bite people. T or F.

30. __________ is another name for pertussis.

31. Soda pop helps to make the enamel of teeth resistant to bacteria. T or F.

32. What is scabies?

33. An organism which harbors a parasite is called a __________.

Quiz # 3 (Continued)

34. What is diplococcus (draw example)

35. __________ , ___________ and _____________ are needed for bacteria, to reproduce.

36. How can a Community Health Aide help in controlling venereal disease?

37. What are the six F's?

38. There is a vaccine to prevent measles, therefore all children should be immunized against this disease. T or F

39. The kinds of food we eat really have no effect on dental health since absorption takes place in the s. intestine. T or F

40. Describe the proper way to brush the teeth.

41. ____________ and ____________ are two ways that help prevent the spread of diphtheria.

42. Venereal disease is a persons own business and public health workers should not bother people who may have it. T or F

43. Name three ways of killing bacteria. a. b. c.

44. What is staphococcus (draw example)?

45. Define ectoparasite and name two. a. b.

46. What is a pathogen?

47. All bacteria are harmful to humans. T or F

48. Name three ways that dental caries can be prevented:
    a.
    b.
    c.

Quiz # 3 (Continued)

49. If you are told by your Team Leader that you are to visit a certain home because three small children have scabies, describe what you would do to help this family get rid of this disease.

50. The presence of many flies in an area indicates ________________ .

51. ________________ is the study concerned with the cause of, or spread of disease in a community.

52. All living things have parasites. T or F

53. Why are bacteria so important in the spread of disease?

54. What can a Community Health Aide do to help carry out a "Tuberculosis Program"?

55. What is personal hygiene?

56. Enteric infections can be prevented by: a. b. c.

57. Name three animal parasites of man. a. b. c.

58. What are bacteria?

59. What is an enteric infection?

60. Respiratory diseases are transmitted by: a. b. c.

61. After this exam is over the best thing a person could do is: (choose one)

    a. Wash their hands

    b. Read over the questions again and change all the answers

    c. Go to the nearest insane asylum

PART IV

BASIC HOME NURSING AND HOME HEALTH PRACTICE

PART IV—BASIC HOME NURSING AND HOME HEALTH PRACTICE

SECTION A – MOTHER AND BABY CARE

The purpose of this series of lectures is to provide the student with a thorough and detailed understanding of mother and baby care. These lectures are based on the material contained in the six lessons setforth in the American Red Cross Home Nursing - Instructors Guide under the following headings:

Lesson 1 - Before the Baby Comes

- a. Review of reproductive system
- b. Signs of pregnancy
- c. Importance of early and continued medical care
- d. The obstetrical physical examination
- e. Danger signs in pregnancy
- f. Preparing for hospital delivery
- g. Tour of labor and delivery rooms, nursery, maternity ward with demonstration and explanation of equipment
- h. Good health practices during pregnancy

Lesson 2 - The Mother's Nutritional Needs and The Baby's Supplies

- a. Diet during pregnancy and lactation
- b. Weight control in pregnancy
- c. Importance of breast feeding
- d. Planning for the new baby
    - (1) Clothing
    - (2) Bedding
    - (3) Bathing
    - (4) Equipment needs and improvising

Lesson 3 - The Baby is Born

- a. Care of mother during labor
- b. Preparation for emergency home delivery
    - (1) Equipment needs and preparation of equipment
    - (2) Preparation of mother for home delivery
- c. Emergency delivery
    - (1) Normal delivery
    - (2) Procedures to be followed for assisting at a normal delivery
    - (3) Cutting and tying of cord

Lesson 3 - The Baby is Born (Continued)

- d. Immediate after care of mother
  - (1) Massaging fundus
  - (2) Periveal care
  - (3) Dispasing of placenta
- e. Immediate care of newborn
  - (1) Keeping air passages open
  - (2) Cord care
  - (3) Eye care

Lesson 4 - The New Baby

- a. Characteristics of normal newborn
- b. Looking for abnormalities in the newborn
- c. Referral for diagnosis and treatment when abnormalities are found or suspected
- d. The Premature infant

Lesson 5 - Daily Care of the New Baby

- a. Review of baby bath procedure
- b. Establishing a routine for caring for baby
- c. Feeding baby
- d. Dressing baby for the weather
- e. Laundering baby clothes and diaper care
- f. Formula preparation

Lesson 6 - The Baby's First Year

- a. The baby as a member of the family
- b. Feeding
- c. Sleep
- d. Immunizations
- e. Importance of Well-baby clinic
- f. Common illnesses during infancy

SECTION B – NORMAL GROWTH AND DEVELOPMENT AND THE IMPORTANCE OF WELL CHILD CONFERENCE AND EARLY IMMUNIZATIONS

The purpose of this lecture is to make the student more aware that (1) there are many factors influencing normal growth of children; and (2) there are ways in which the Community Health Aide can encourage certain means for normal growth.

1. Types of Growth and Development

- a. Physical growth and development
- b. Intellectual growth and development
- c. Emotional growth and development

2. Factors Affecting Growth and Development

a. Genetic

b. Trauma

c. Nutritional

d. Socio-economic

e. Social and emotional

f. Cultural

3. Developmental Tasks of Emotional Growth

a. Birth to 1 year....................................sense of trust.

b. 1 to 3 years..sense of automony (of being an individual person).

c. 3 to 6 years..sense of initiative.

d. 6 to 12 years......................................sense of industry and accomplishment.

e. Adolescent..sense of identity.

f. Early adulthood...................................sense of intimacy.

g. Middle adulthood................................sense of creativity - contributes to society

h. Late adulthood....................................sense of integrity - of having lived a significant life.

4. Vaccination and Immunization Schedules

a. Beginner- - - - - - - - Up date immunizations

b. 4th grade - - - - - - - Up date immunizations

c. 8th grade - - - - - - - DT adult and Smallpox

4. Vaccination and Immunization Schedules (Continued)

d. 12th grade - - - - - - - Up date immunizations

Note:

DPT - diphtheria, pertusis (whooping cough), tetanus (lockjaw)

DT - diphtheria and tetanus

OP - Sabin trivalent polio, oral

PPD - tuberculosis skin test

Ideally PPD should be done yearly.
Tetanus booster given for certain wounds.
Smallpox usually not given during the summer months because of danger of vaccination spreading to sores.

SECTION C - ELEMENTARY ANATOMY AND PHYSIOLOGY OF PREGNANCY

The purpose of this lecture is to provide the student with an understanding of the reproduction process, anatomy and physiology of pregnancy, expected symptoms in mothers, and the labor and delivery processes.

1. Brief Review of Reproductive Anatomy of Female
2. Review of Menstruation Physiology
   a. Purpose of Menstruation. Menstrual cycle represents cyclic preparation of reproductive system for pregnancy.
   b. Schematic of Ovulation (migration, fertilization, implantation see below)
3. Conception - Simple Embryology
   a. Intercourse during fertile period.
   b. Sperm migration up during the period egg migrating down.
   c. Fertilization in tube - Migration of fertilized egg into uterus.
   d. Implantation
   e. Description and purpose of placenta.
4. What Happens to Mother During Pregnancy
   a. Brief comment on changes of various organs and systems
      (1) Skin
      (2) Bones (pelvis)

4. What Happens to Mother During Pregnancy (Continued)

- a. Brief comment on changes of various organs and systems (Continued)
  - (3) Heart and blood
  - (4) GI system
  - (5) GU system
  - (6) Reproductive system (ovaries and tubes, cervix and vagina, breasts)
- b. Diagnosing pregnancy on changes in above organs - but only presumptive signs.

5. Fetal Growth and Development in Bag of Water

- a. Growth and placental function
- b. Rate of growth
- c. Development of systems
- d. Movements and heart beat
- e. Measuring height of fundus, palpating size, position of baby.
- f. Dropping down of baby into pelvis
- g. Contractions - Braxton Hicks, etc.

6. Things Happening to Mother During Pregnancy Which she Complains of to Doctors

- a. Backache
- b. Varicosities
- c. Hemorrhoids/piles
- d. Heartburn
- e. Tired and sleepy
- f. Headache
- g. Constipation
- h. Leg Cramps
- i. Nausea and vomiting
- j. Nocturia

7. Things Doctor Needs to Know and Check at Prenatal Clinic

   a. Medical history and complete physical examination

   b. Careful examination of abdomen

   c. Pelvic measurements

   d. Vaginal examination

   e. Lab Tests - urine, HGB, STS, RH, Smear

8. Labor and Delivery

   a. Onset of Labor
      (1) Rupture BOW

      (2) Bleeding

      (3) Contractions

   b. Stages of labor I, II, and III

   c. Mechanisms of labor (Chart demonstration)

   d. Close observation during labor

      (1) Progress

      (2) FHT's

      (3) BP

      (4) Prep and enema

      (5) Scrub and drape

      (6) Pain medication - why limited

   e. The Delivery

      (1) Forceps

      (2) Episiotomy

      (3) Complications
         (a) Cord around neck
         (b) Shoulder dystocia
         (c) section

SECTION D – FIELD HEALTH CLINICS

The purpose of this lecture is to:

- teach the student that he or she should encourage families to attend scheduled health clinics and to be aware of the time set for clinics; and
- enlighten the students on their role in promoting clinic attendance and their promotion of health education in the clinic waiting room.

1. TB Clinic

a. Reason for clinic

(1) To provide medical supervision of TB patients, TB suspects and TB contacts.

b. Role of CHA

(1) To aid in interpreting TB clinics to families and to encourage regular medical supervision of TB patients. (Get the point across to TB patients, contacts and suspects how important routine medical care really is.)

(2) To use clinic waiting rooms for presenting educational aspects of better health when possible.

2. Maternal - Child Health Clinic

a. Reason for clinic

(1) To provide medical supervision to mothers, infants and preschool children. Health services are provided to prevent illness and to correct defects and to observe normal development. Counceling by nurse and physician is included.

b. Role of CHA

(1) To interpret among the families the need for these services for all prenatals and for mothers with their small children and to encourage regular clinic attendance.

(2) To use clinic waiting rooms for presenting educational aspects of better health when possible.

3. General Clinic

a. Reason for Clinic

(1) To provide medical services to patients needing such services. (This is a clinic for the sick.)

3. General Clinic (Continued)

b. Role of CHA

(1) To assist in case finding.

(2) To encourage people to seek medical care before becoming very ill.

(3) To encourage the people to use a clinic nearest their home when possible.

(4) To use clinic waiting rooms for presenting educational aspects of better health when possible.

SECTION E – BAG THERMOMETER TECHNIQUES

The purpose of this lecture is to equip the student with information relative to a hygenic method for taking temperature of adults and children in their homes or other non-clinic or non-hospital setting.

1. Oral or Mouth Temperature

a. For children over 6 years of age and adults who are not rational

(1) Equipment

(a) Thermometer case with disinfectant, preferably Alcohol-Iodine solution.

(b) Oral thermometer

(c) 4 cotton balls

(d) Liquid hexachlorophene soap

(e) Alcohol 70%

(f) Waste container

(2) Procedure

(a) Remove thermometer from case. Shake down as necessary. Rinse with cold water.

(b) Tell patient what you are going to do. Insert under tongue for three minutes.

(c) Remove from mouth. Wipe with dry cotton ball. Read.

(d) Moisten three cotton balls in the following way:

i. 1 with the liquid hexachlorophene soap

ii. 1 with the soap and alcohol

iii. 1 with alcohol

1. Oral or Mouth Temperature (Continued)

(2) Procedure (Continued)

(e) Cleanse thermometer with rotary friction from top to bulb with the soap, then soap and alcohol and then alcohol pledgets.

(f) Return the thermometer to case. Check for sufficient disinfectant, and add as necessary.

(g) Do not use again for 10 minutes. Leave in case until needed.

2. Rectal Temperature

a. For children under 6 years of age and unconscious or uncooperative adults.

(1) Equipment

(a) As required for oral temperature but with the following changes:

i. Substitute rectal thermometer for oral thermometer.

ii. 6 cotton balls instead of 4

iii. Water-base lubricant

(2) Procedure

(a) Remove from case and wipe off disinfectant

(b) Place a small amount of the lubricant on a cotton pledget. Lubricate bulb as you observe for breakage.

(c) Have child or adult in a safe, convenient position and insert thermometer into rectum about 1 inch. Leave for three minutes.

(d) Remove thermometer. Wipe with dry cotton pledget. Read

(e) Cleanse as oral thermometer & return to proper case.

SECTION F – BAG TECHNIQUE FOR HOME VISITS

The purpose of this lecture is to:

- provide the student with an orderly and hygenic method for home visits to families or individuals.
- provide the student with instructions to be given the family of the necessity for cleanliness of hands and work area when examining or caring for ill or well persons to prevent the spread of disease.

1. Equipment

a. Bag as selected

b. Washable lining for bag with pockets for bottles, paper towels, scissors and thermometers.

c. 1/2 inch band of elastic to fasten newspapers to bag.

d. 8 to 10 double sheets of newspaper folded.

e. 10 to 12 paper towels folded and placed in proper pocket.

f. Apron in plastic bag.

g. Bottles in proper pockets containing:

   (1) Liquid hexachlorophene soap (1st pocket to left)

   (2) Alcohol 70% (2nd pocket from left)

   (3) Alcohol 70% - Iodine 1% solution (3rd pocket from left)

h. Thermometers in containers with Alcohol-Iodine Solution.

   (1) Oral (2) marked "O"

   (2) Rectal (2) marked "R"

i. Tube of water soluble lubricant for taking rectal temperatures.

j. Cotton Balls (small or medium) in plastic container.

k. Tongue blades - protected with paper towel or similar wrapper for cleanliness.

l. 2 or 3 packages of sterile applicators (2 applications to package)

m. Assorted material for dressings

   (1) 6 to 8 4 X 4's (sterile)

   (2) 6 to 8 2 X 2's (sterile)

   (3) 6 bandaides

   (4) 1 or 2 inch roller bandage

   (5) 1/2" adhesive tape.

n. Bandage scissors placed in pocket.

2. Procedure

a. Remove newspaper which has been placed protruding from bag. Unfold it and place on flat surface - preferably a table. Place bag on newspaper.

b. Open bag. Remove another newspaper and make a waste disposal bag.

c. Remove soap and 2 paper towels from bag. Place 1 towel at wash area for soap. Hold other towel (for drying hands) under arm and wash hands under running water or ask someone to pour for you. Dry hands.

d. Remove and spread paper towel over newspaper for work area.

e. Put on apron. Replace plastic bag in bag.

f. Remove necessary articles for visit from bag, including paper towel for drying hands when bag is reentered. Close bag.

g. Wash hands as above when service has been given. Return articles to proper places in bag and clean as necessary.

h. Remove apron and fold with clean side out (side next to you) and with strings folded in. Return to plastic bag.

i. Place on folded newspaper so it protrudes from bag. Close bag.

SECTION G – HOME VISITING PROCEDURE

The purpose of this lecture is to equip the student with the knowledge necessary for scheduling, making and recording home visits.

1. Home Visiting Procedures

a. Steps to making a home visit

  (1) Preparation for home visit

    (a) New family

      i. Study referral

      ii. Make flexible plan for visit

    (b) Revisit family

      i. Study record to be sure you remember services given and needs present.

      ii. Make flexible plan for visit.

1. Home Visiting Procedures (Continued)

a. Steps to making a home visit (Continued)

(2) Home visit

(a) Introduction of self (1st visit) or greeting (revisit). Tell why visit is being made.

(b) Ascertain if family situation is such that planned visit may be made or if a more immediate problem is present.

(c) Perform services and/or teaching as indicated.

(3) Recording home visit

(a) Activity (Home visit, office visit, etc.)

(b) Why visit was made.

(c) What aide found in home.

(d) Progress made by family since last visit.

(e) What the nurse did (services or teaching)

(f) Plan for future follow-up of family.

(4) Schedule family for follow-up visit if needed. Discharge if no further service is necessary.

b. Important points to remember when making home visits:

(1) The aide is a guest in the home.

(2) The total family group should be included in the visit.

(3) The family or its individual members should be encouraged to participate in the visit. Let them talk too.

(4) Teaching should be done with words the family can understand. There is a difference between teaching (explaining) and telling.

(5) Use literature and demonstrations with teaching because a person remembers:

(a) 10% of what he learns.

(b) 30% of what he reads.

(c) 50% of what he sees.

(d) 90% of what he does.

(6) Do not force ideas on a family or have them do things for you. Wait until the family is ready to accept the change.

SECTION H – HOME NURSING

The purpose of this series of lectures is to provide the student with a basic understanding of the information needed to prepare families to care for ill persons at home. These lectures are based on the material contained in the American Red Cross "Home Nursing - Textbook", Seventh Edition, 1963, published by the Doubleday and Company, Inc., New York.

1. Maintaining Health

a. Essentials of Nursing Care

b. Preventing the Spread of Disease

(1) Providing for safe disposal of waste using grocery and newspaper bags.

(2) Washing hands

(3) Wearing a cover-all apron.

c. Choosing a well-balanced diet

(1) Planning meals for sick and well people

(2) Modifying meals for special diets

(3) Feeding the helpless patient

(4) Improvised equipment

(a) Food cooler

(b) Nipple container

(c) Formula bottle

(d) Bottle cleaner

d. Keeping the Patient's Daily Record and Doctor's Orders

2. Recognizing Illness

a. Observing Evidence of Illness

b. Inspecting the Throat

c. Taking Temperatures

d. Counting the Pulse

e. Counting Respirations

2. Recognizing Illness (Continued)
    - f. Taking More than One Temperature at a Time
    - g. Keeping Family Health Records

3. Positioning and Body Mechanics
    - a. Resting in bed
    - b. Conservation of energy
    - c. Body mechanics and good posture
    - d. Preparing the patient to move in bed
    - e. Positioning the bed patient
        - (1) Raising to a sitting position
        - (2) Raising to a sitting position without help
        - (3) Using pillows for patient laying on back
        - (4) Placing backrest and bed table
        - (5) Using pillows for patient lying on back
    - f. Moving the patient in bed
        - (1) Moving to the side of the bed
        - (2) Rolling onto the side
        - (3) Rolling from side to side
        - (4) Rolling from side to back
    - g. Protective devices to keep the patient in bed
    - h. Prevention of bedsores

4. Personal Services for the Bed Patient
    - a. Giving a bedpan
        - (1) For the patient who can help
        - (2) For the patient who is helpless
    - b. Cleaning a bedpan (and urinal)

4. Personal Services for the Bed Patient (Continued)

- c. Using a commode
- d. Preparing for a bath
- e. Giving a bed bath
- f. Providing other personal services
  - (1) Morning care
  - (2) Care of skin, hair, and nails
  - (3) Cleansing the teeth and mouth
  - (4) Mouth care for the helpless patient
  - (5) Caring for dentures
  - (6) Other services
  - (7) Evening care.

5. Getting Out of Bed

- a. Making an occupied bed
  - (1) Putting the patient to bed
  - (2) Changing the bottom sheet
  - (3) Putting on a contour bottom sheet
  - (4) Placing and using a drawsheet
  - (5) Moving the patient on a drawsheet
    - (a) Moving up or down in bed
    - (b) Moving to the side of the bed
    - (c) Moving to a prone position
    - (d) Moving from prone to supine position
    - (e) Changing the pillowcase
    - (f) Placing the top covers
- b. Getting the patient out of bed

5. Getting Out of Bed (Continued)

   c. Preparing the patient to walk

   d. Helping the patient to walk

6. Giving Medications and Simple Treatments

   a. Appraising the home medicine chest

   b. Giving medicines

   c. General information about treatments

   d. Treatments using heat

      (1) Preparing and applying a hot water bottle

      (2) Applying a hot moist compress

   e. Treatments using cold

      (1) Preparing and applying an ice bag

      (2) Preparing and applying a moist cold compress

   f. Care of wounds

   g. Applying a pressure dressing

   h. Review of the course (evening care)

SECTION I – ORAL HEALTH EDUCATION

The purpose of this lecture is to provide the student with a basic understanding of tooth anatomy, functions, processes of decay and the reasons, needs and procedures for good oral health and hygiene practices.

1. Teeth - General Considerations (Explained with help of charts)

   a. Tooth Anatomy

      (1) Teeth are hard calcified structures firmly fixed in bony sockets in the upper and lower jaw.

      (2) A tooth is divided into two parts:

         (a) The crown - that portion visible in the mouth.

         (b) The root - or roots which anchor it in the jawbone.

         (c) The junction of the crown and root is the neck.

1. Teeth - General Considerations (Continued)

a. Tooth Anatomy (Continued)

(3) The tooth is composed of four (4) different tissues.

(a) Enamel which covers the crown and is the hardest substance in the human body.

(b) Cementum - a bone-like substance covering the root.

(c) Dentin - an ivory-like substance that forms the body of the tooth.

(d) Dental Pulp - composed of connective tissue, blood vessels and nerves in the center of the tooth which enter at the root apex.

b. Supporting Structures of the Teeth

(1) Gingiva (Gum) - the pink tissue surrounding the neck of each tooth

(2) Cementum - material covering the root

(3) Bone

(4) Periodontal Membrane - a sheath of elastic fibers attached to the cementum of the root and lining the wall of the socket in the bone. This tissue helps hold the tooth in place and acts as a cushion to reduce the shock caused by the teeth coming together in chewing.

c. Tooth Types

(1) Incisors - in front of the mouth for cutting food.

(2) Cuspids - at the corners of mouth for tearing and shredding food.

(3) Bicuspids - meaning "two-cusped" (two elevations on the chewing surface), in position behind the cuspids for tearing and crushing food.

(4) Molars - large teeth generally having four cusps located in back of mouth for crushing and grinding food.

2. Deciduous or Primary Teeth

a. Development and Eruption (Explained with help charts)

(1) Twenty (20) teeth in the first set, ten (10) in each jaw.

(2) These teeth begin to form about the 6th week of life.

(3) By the time the child is born a considerable part of the crowns has been formed.

2. Deciduous or Primary Teeth (Continued)

a. Development and Eruption (Continued)

(4) In most children the first teeth to erupt are the lower central incisors at th age of 6-8 months.

(5) Normally by the age of 2 1/2 to 3 years all twenty (20) of the teeth hav erupted. This is the age at which the child should first be taken to the dentis for an examination.

b. Functions

(1) It is important to keep the primary teeth in a healthy condition until they ar replaced by the permanent teeth to follow. They are important in:

(a) Chewing food properly

(b) Aiding in growth and development of the jaws and face

(c) Speech

(d) Creating an attractive appearance

(e) Maintaining space and acting as guides for the permanent teeth that ar forming beneath them

c. Exfoliation (Shedding of the Primary Teeth)

(1) As the crowns of the permanent teeth grow larger in the jaws, the roots of th primary teeth resorb (shorten)

(2) When the permanent tooth is ready to erupt, the root or roots of the primar tooth have resorbed and only the crown remains which gradually loosens ar is shed.

d. Neglect - reduces the ability of these teeth to perform the functions mentione and may have a harmful effect on the general health of the child. Neglect can lea to pain, infection and eventual loss of the teeth which then could result in driftin and tilting of other teeth leading to malocclusion (poor bite), crowned teeth ar even impacted teeth which could not erupt into the normal position.

3. Permanent or Second Teeth (Explained with help of charts)

a. Development and Eruption

(1) Thirty-two (32) teeth, sixteen (16) in each jaw.

(2) Calcification (hard tissue formation) begins at birth with the molars.

3. Permanent or Second Teeth (Continued)

a. Development and Eruption (Continued)

(3) Usually the first teeth to erupt are the lower central incisors at 6-8 years.

(4) Lateral incisors erupt at 7-9 years

(a) Cuspids " 9-12 "

(b) Bicuspids " 10-12 "

(c) 1st Molars " 6-7 "

(d) 2nd Molars " 11-13 "

(e) 3rd Molars " 17-21 "

b. The First Permanent Molars are considered to be the most important teeth in the mouth and are sometimes referred to as "the keystones of the dental arch."

(1) These teeth erupt at 6-7 years, two in the upper arch and two in the lower; they erupt behind the last primary molars.

(2) Importance:

(a) Its position helps to determine shape of lower part of face.

(b) Its position and health determine to a great extent the position of other teeth.

(c) This tooth is the most susceptible of all the permanent teeth to decay. It is very important then that the child receive dental care early so that a dentist can examine these as soon as they appear in the mouth.

c. Functions

(1) Mastication (chewing) of food.

(2) Maintain support of facial structures such as the lips and cheeks to give a pleasing appearance.

(3) Important for good speech.

d. Results of Neglect

(1) Periodontal disease and pain

(2) Premature loss of teeth

(3) Poor nutrition because of inability to chew foods properly for a well balanced diet.

3. Permanent or Second Teeth (Continued)

d. Results of Neglect (Continued)

(4) Speech defects

(5) Irregularities of the teeth

(6) Loss of support to the facial tissues

(7) Social embarrassment and emotional disturbances

4. Process of Dental Caries (Decay) (Explained with help of charts)

a. Cause - Carbohydrates (sugars) in the mouth plus acid-producing bacteria yield decalcification of tooth enamel which leads to decay. Dental caries activity is highest between 5-8 and 12-13 years of age.

b. Stages

(1) Early decay into enamel

(2) Decay through the enamel into the dentin

(3) Decay into deeper portion of dentin

(4) Decay into pulp with resultant death

(5) Abscess formation

(6) Extraction

5. Process of Periodontal (Gum) Disease (Explained with help of charts)

a. Causes

(1) Local

(a) Calculus (tartar)

(b) Rough, broken or missing fillings

(c) Impacted food

(d) Lack of oral hygiene

(e) Malocclusion

5. Process of Periodontal (Gum) Disease (Continued)

a. Causes (Continued)

(2) Systemic (General)

(a) Leukemia

(b) Diabetes

(c) Vitamin deficiencies

b. Progress

(1) Food and tartar deposits have irritated gum causing inflammation.

(2) Periodontal pockets have formed.

(3) Infection and destruction of periodontal membrane and bone causing loosening of tooth or teeth.

(4) Extraction necessary

6. Oral Hygiene

a. Importance - The teeth should be brushed regularly to improve appearance, to keep the mouth clean, to help prevent decay, and to stimulate the gums to good health. Children should be taught to brush the teeth at an early age (as soon as they will accept the toothbrush in their mouth) with help by the parent until the child is old enough to manage doing a thorough job of brushing without help.

b. How to Brush the Teeth (Explained with help of large models, large toothbrush and charts)

(1) The teeth should be brushed regularly and well for at least two or three minutes after eating.

(2) The jaws should be held slightly apart.

(3) The upper teeth are brushed with a downward motion ("the way the teeth grow").

(4) The lower teeth are brushed "the way the teeth grow" - with an upward motion.

(5) The inside surfaces and the chewing surfaces as well as the outside surfaces of the teeth should be brushed in an orderly manner.

(6) The teeth should not be brushed simply across as this stroke is not effective in cleaning them and may actually injure both gums and teeth.

(7) The mouth should be rinsed thoroughly with warm water after brushing in order to remove loose food particles. Rinsing also helps to keep the mouth clean and the breath free from odor.

6. Oral Hygiene (Continued)

c. When to Brush the Teeth - Immediately after eating. If this is not practicable, the teeth should at least be rinsed with water. Cleansing the mouth after breakfast enables one to start the day with a clean set of teeth. Thorough cleansing of the mouth after the evening meal assures one that the teeth will be reasonably clean for at least 8-12 hours out of the twenty-four.

d. Selection and Care of the Toothbrush

(1) Children should use a small size and adults a standard size.

(2) The brush should have a flat brushing surface with two or three rows of bristles.

(3) The life of the brush will be increased if, after it is used, it is thoroughly rinsed in cold water and the excess moisture is shaken out. It should then be hung in a light airy place to dry.

(4) The toothbrush should never be used by anyone except its owner.

e. Dentifrices (Tooth pastes and powders) and Practical Substitutes

(1) The chief function of a dentifrice is to assist the toothbrush in cleaning the teeth. Both tooth pastes and powders do a very good job of cleansing. A tooth paste with fluoride in it should be used especially since the fluoride will combine with the tooth enamel to make it more resistant to decay. If it is not possible to have a commercial tooth paste or powder for use in the home, then baking soda (bicarbonate of soda) or a mixture of baking soda and powdered table salt will serve as an excellent dentifrice. These substitutes are very beneficial and inexpensive. Remember that the brushing itself and when it is done---immediately after eating---that is most important.

7. Relation of Oral Health to General Health (Chart used)

a. General consideration given to significance of dental disease present in persons with diabetes, kidney disease, arthritis, rheumatic heart disease, etc.

8. Importance of Frequent Visits to the Dentist

a. The child should be taken to the dentist at the age of 2 1/2 to 3 years for his first visit so that he may get acquainted with the examination and/or dental treatment procedure and not develop a fear of the dentist. Unfortunately, too often it is the case that the child comes to the dental office with a toothache on his first visit and this is always a difficult and uncomfortable situation for the child, parent and dentist. By visiting the dentist regularly at least twice a year, the child will learn to know the dentist as a friend.

9. Importance of Adequate Diet and Reduction of Carbohydrate Consumption

a. During the years the teeth are being formed (from about five (5) months before birth to the age of eight years) an adequate supply of vitamins A, C, and D, Calcium and Phosphorus is necessary for hardening of the tooth structure. The gums and bone of the jaws too must have the nourishment of a balanced diet throughout life just as other parts of the body. A diet good for general health will be good also for dental health.

b. Foods rich in vitamin A (liver, milk, spinach, beans, peas and eggs) are very important to growing enamel and dentin and also to the soft tissues of the mouth.

c. Foods containing vitamin C (oranges, grapefruits, apples, and bananas) should be included in the daily diet because the gums, periodontal membrane, lining of the oral cavity and other soft tissue of the mouth are very sensitive to a deficiency of this vitamin.

d. Vitamin D (found in rich supply in cod-liver oil, eggs and also in fortified milk) is important also for normal tooth formation.

e. Milk is one of the best sources of calcium which is an important mineral for tooth and bone growth as is phosphorus which is found readily in whole grain cereal, beef, liver, fish, eggs and cheese.

f. Carbohydrates are essential to the well-balanced diet; these substances give us energy. The intake, however, of sugar, candy, jelly, cookies and cake should be kept at a minimum since free sugar is the vital link in the process of tooth decay. Also chewing gum that has sugar (sugarless type is satisfactory) and carbonated beverages (soda pop) should be limited in the diet as these have an extremely high sugar content.

SECTION J – MEDICINES AND THEIR USE AND STORAGE

The purpose of this lecture is to acquaint the student with proper use of medicines prescribed, adequate storage of all medicine in the home and the disposal of unused medicines.

1. Self Treatment with Medication

a. Follow directions on bottle

b. Use only medications prescribed for a particular illness and to a particular individual.

2. The Medicine Cabinet

a. List of supplies and medicines that will be found in the medicine cabinet

(1) List provided from students

(2) List reviewed by instructor explaining good or bad effects of items listed (home remedies).

(3) List expanded to include missed items.

3. Disposal of Medication

a. When - left over after treatment, etc.

b. How - burn, bury, flush down toilet, return to hospital pharmacy for disposal.

4. Five Rights of Giving Medication

a. Right medicine

b. Right amount

c. Right person

d. Right time

e. Right manner

5. Demonstration and Practice on "Right Manner"

a. Use of dropper bottle

b. Use of eye ointment

c. Use of nose drops

d. Pouring from bottle - liquid and tablets

e. Reasons for using a medication teaspoon based on variation in regular teaspoon.

6. Importance of Special Directions

a. Moistening of certain tablets, etc. prior to use.

b. Take until gone on antibiotics - outdate, etc.

c. Reason for auxillary labels

SECTION K – FIRST AID

This lecture is based on the "American Red Cross First Aid Book, Fourth Edition and the purpose is to:

- impress upon the students the importance of knowing what to do in emergency situations.
- provide supervised practice sessions to better qualify the students in First Aid activities and to encourage each student to become more confident in himself when the need for First Aid arises.
- better qualify the students to teach basic First Aid principles to families.
- provide each student with the Red Cross First Aid book and appropriate explanation.

1. CHA Role in First Aid

a. To meet emergency situations with confidence and intelligence in an effort to prevent additional complications in a patient,

b. To teach and encourage use of First Aid among beneficiaries.

2. Why "First Aid"

a. Definition

b. Value of adequate knowledge in First Aid practice

   (1) Self

   (2) Others

3. How to Administer First Aid

a. Basic steps

b. Speed

4. Wounds

a. Definition

   (1) Abrasions

   (2) Incised wounds (cuts)

   (3) Lacerations

   (4) Puncture wounds

b. Prevention

   (1) Example situations

c. How to give First Aid to bleeding wounds

   (1) Slight bleeding

      (a) Wash your hands thoroughly

      (b) Cleanse the injury thoroughly - use soap and boiled water cooled to room temperature or clean water and soap.

      (c) Apply a sterile or clean dressing, and bandage it snugly into place.

      (d) Tell patient to see the doctor promptly if evidence of infection (or severe soreness) appears.

4. Wounds (Continued)

c. How to give First Aid to bleeding wounds (Continued)

(2) Severe bleeding

(a) Stop the bleeding:

i. Use pressure directly over the wound (use a clean cloth)

ii. Pressure on arteries (applying pressure at the indicated point slows down the flow of blood from the wound. Two points on each side of the body will be discussed here.

- Pressure applied on the inner half of the arm (between the elbow and armpit) will help to prevent extreme bleeding from a wound on the hand, wrist, lower arm.
- Pressure applied just below the groin on the front inner half of the thigh will help to prevent extreme bleeding from a wound on the foot, lower leg, and knee.

5. Shock

a. Definition

(1) Blood circulation slowed

b. Causes and Danger of shock

(1) Burns - discussion

(2) Wounds "

(3) Fractures "

c. Signs and symptoms of shock

(1) Patient very weak

(2) Pale skin, moist and cool

(3) Some perspiration may be noted on patient

(4) Patient may be nauseated

(5) Thirst

(6) Fast, weak pulse

5. Shock (Continued)

   d. First Aid

      (1) Body position

         (a) Patient should lie down - explanation

      (2) Heat

         (a) Cover patient (including underside if patient is on ground)

            Note: Do not apply external heat such as hot water bottle, heating pad, etc. (explanation)

      (3) Medical attention

         (a) Get patient to hospital as soon as feasible.

6. Artificial Respiration

   a. Definition

   b. Mouth to mouth resusitation; other (demonstration and practice using model)

   c. When to use

      (1) Electrocution

      (2) Poisoning by gas

      (3) Drowning - explanation

7. Poisoning by Mouth

   a. Review First Aid card

8. Injuries to bones, joints, and muscles

   a. Fractures - bandage tying
   b. Sprains - " "
   c. Dislocations " "

   d. Strains - " "

9. Burns - Explanation and demonstration (refer to Red Cross First Aid card)

   a. Prevent infection
   b. Comfort to patient

10. Snake Bite and Black Widow Spider Bite

a. Ice and cold water pack

b. Keep patient calm (no walking or running)

c. Take patient to the hospital

d. Discussion on cross cutting

SECTION L – REFERENCE BOOKS, PAMPHLETS AND FILMS

The following materials were available and utilized in conjunction with lectures under the heading "Basic Home Nursing and Home Health Practices".

1. Books

a. The Practical Nurses, Culver-Bromwell, 6th Edition

b. Practical Nursing, Mosby, 2nd Edition

c. Family Health and Home Nursing, Ruslink

d. Mother and Child Care - Instructor's Guide, The American Red Cross Home Nursing, Washington, D.C.

e. Home Nursing - Textbook, American Red Cross, Seventh Edition, 1963, published by Doubleday and Company, Inc. New York.

2. Pamphlets

a. "Infant Care", DHEW, Childrens Bureau Pub. #8, 1965 Supt. of Documents, U.S. Gov't Printing Ofc. Washington, D.C.

b. "Your Baby's First Year", DHEW, Social Security Administration, Childrens Bureau, Pub. #400, U.S. Gov't Printing Office, Washington, D.C.

c. "Diarrhea Is Here", PHS, DIH, Pine Ridge, South Dakota.

d. "Recommendations for Infant Feeding", Pine Ridge Indian Health Service Unit, Pine Ridge, South Dakota (unpublished)

e. "Breast Feed Your Baby", DIH, Aberdeen Area Office

f. "How to Prepare SMA Formula", DIH, Indian Health Service Unit, Pine Ridge, South Dakota (Mimeograph form)

g. "Evaporated Milk Formula", DIH, Indian Health Service Unit, Pine Ridge, South Dakota (Mimeograph form)

2. Pamphlets (Continued)

h. "Boys/Adaptive-Social Development, Birth to 56 Weeks", Ross Laboratories, Columbus 6, Ohio.

i. "Boys/Physical Development, 1 to 18 Years", Ross Laboratories, Columbus 6, Ohio

j. "Girls/Physical Development, 1 to 18 Years", Ross Laboratories, Columbus 6, Ohio.

k. "Your Baby's First Year", HEW, Childrens Bureau, Publication No. 400-1962, Washington, D.C.

l. "Discovering Parenthood - Your Baby, Your Doctor and You", Ross Laboratories, Columbus 6, Ohio

m. "Toothbrushing", American Dental Association, 222 East Superior Street, Chicago 11, Illinois

n. "Food for Fitness", U.S. Dept. of Agriculture, Leaflet No. 424, U.S. Gov't Printing Office, Washington, D.C.

o. "Health and Immunization Record" Eli Lilly and Company, P.O. Box 618, Indianapolis, Indiana

3. Films

a. "A.R.C. First Aid, Part I", black and white, 20 minutes.

b. "A.R.C. First Aid, Part II", black and white, 20 minutes.

c. "A.R.C. One Minute Past Three"

d. "A.R.C. Prairie Schooner, Space Age Model"

e. "A.R.C. The Wonderful World of Food"

f. "A.R.C. Image In The Mirror"

g. "A.R.C. Transport to Tomorrow"

h. "A.R.C. Danger! Handle with Care"

i. "A.R.C. The Road Back"

j. "A.R.C. Water"

k. "A.R.C. Target Babies and Children"

l. "A.R.C. Milford, U.S.A."

m. "Labor and Childbirth" Series I, Medical Arts Productions, Inc., P.O. Box 4042, Stockton, California.

PART IV – BASIC HOME NURSING AND HOME HEALTH PRACTICE

Quiz # 1

Name: ______________________________

1. Why do we place so much emphasis on "pre-natal care"?

2. The best way to assure a healthy baby is to have a healthy mother. T or F

3. The three stages of labor are:

   a.

   b.

   c.

4. If a woman has had three or more children it isn't necessary that she attend pre natal clinic. T or F

5. When should a woman come to get pre-natal care?

6. The size of the ____________ opening (canal) determines whether or not a baby can be delivered normally.

7. What can a Community Health Aide do to assist in improving maternal and child heal h on the reservation, or in a local community?

PART IV – BASIC HOME NURSING AND HOME HEALTH PRACTICE

Quiz # 2

Name:________________________

1. What is an infant?
   What is a new-born?

2. Why is it absolutely necessary that bottles, nipples, etc. be sterilized prior to feeding a newborn?

3. What would you do when showing a mother how to "clean" the cord of a newborn?

4. What is a pre-mature baby?

5. Name the essential supplies that an expectant mother should have when preparing for the birth of her baby.

6. One should never use soap when bathing a newborn. True or False.

7. How long should water be boiled prior to feeding it to a newborn?

8. How long should bottles, nipples, etc. be boiled before using them to feed a newborn?

9. How does SMA differ from evaporated milk?

10. With all that modern science has put into formulas it is now recommended that mothers not breast feed their babies. True or False.

11. The following question is for my own information and will not be graded:

    Do you feel that you know enough to go into any home where there is a newborn and help the mother care for her baby adequately? Why? (use other side of paper if needed)

PART IV – BASIC HOME NURSING AND HOME HEALTH PRACTICE

Quiz # 3

Name: ______________________________

1. A baby must be fat to be healthy. T or F

2. Diseases which a pregnant woman has cannot be transmitted to her fetus. T or F

3. What is the function of the placenta?

4. What does "hygiene of pregnancy" mean? Give three examples

5. Describe the process of reproduction from fertilization of the egg to the birth of the baby.

6. How do immunizations work?

7. Bathing a newborn baby with oil is the same as bathing him with soap and water. T or F

8. What is the post partum care and is it necessary?

9. Why is it necessary to sterilize the baby's bottles, nipples, etc.?

10. Lockjaw is completely preventable. T or F

11. The______________ is the opening of the uterus.

12. When should a woman seek prenatal care?

Quiz # 3 (Continued)

13. Name at least five things that influence the growth of children:
    a.
    b.
    c.
    d.
    e.

14. How many shots of DPT are in the series and when should a child get them?

15. Fertilization of the ovum takes place in the ________________.

16. Women who are obese and who consistently bear large babies have a tendency to develop diabetes. T or F

17. What is a newborn?

18. You visit a home you find a newborn lying on a bed crying. No one home. What would you do?

19. What is cradle cap and what should be done to a baby who has it?

20. There is no vitamin__or__in breast milk, therefore all breast fed babies need a vitamin supplement.

21. Is it true that pertussis antibodies do not pass through the placenta to the fetus?

22. What are some danger signs during pregnancy?

23. Potatoes, bread and lot of milk make up a sufficiently balanced diet for a growing child. T or F

24. What does DPT stand for?

Quiz # 3 (Continued)

25. You are told to visit a certain home where the woman has just had a baby. There are also five other children in the house. What will you look for in this house? What will you ask the mother? How will you promote better health practices in the home? The home is one room.

26. Mothers should be encouraged to breast feed their babies. T or F

27. The fetus develops in the ___________ of the woman.

28. How can the CHA help an "expectant" mother?

29. What kind of POLIO vaccine is given in your community and how is it given?

30. Why is it necessary that a woman eat proper food during pregnancy?

31. What are the purposes of well baby clinic?
    a.
    b.
    c.

32. You visit a home where you see a 12 year old feeding a newborn water. The water is in the baby bottle. What would you do?

Quiz # 3 (Continued)

33. The more weight a woman gains during pregnancy the better her chances are of having a healthy baby. T or F

34. When should babies be immunized against measles?

35. You visit a home where there is a newborn and the mother says that she doesn't want you to visit her. What will you say and do?

36. You will visit a home where there is a newborn and you see that the baby's diaper has not been changed for a long time. You point this out to the mother and she says that she only has six diapers and they are all dirty. What would you do?

37. List the things you as a CHA can do to help in improving maternal and child health in your community: (use other side for answer)

38. Name six diseases that we can prevent but can not treat too well:

a.
b.
c.

d.
e.
f.

PART IV – BASIC HOME NURSING AND HOME HEALTH PRACTICE

Quiz # 4

Name: ______________________________

1. Name the five fundamentals to be observed in all home health practices.
   a.
   b.
   c.
   d.
   e.

2. Why is handwashing so important?

3. When should hands be washed?

4. What are the three ways of taking temperatures? What is the normal for each?

   a.______________________________ ________________

   b.______________________________ ________________

   c.______________________________ ________________

5. When you visit a home and a person says they don't feel well, what symptoms would you look for?

6. What is the "pulse rate"?

7. Tell in your own words what "symptoms" means.

PART IV – BASIC HOME NURSING AND HOME HEALTH PRACTICE

Quiz # 5

Name: ______________________________

1. What is "BODY MECHANICS"?

2. Give four reasons why a bath is necessary.

   a.
   b.
   c.
   d.

3. Why is it necessary that a patient be made as comfortable as possible in bed?

4. Vitamin C is acquired from ________________ .

5. List three ways in which milk can be included in a diet without having to drink the milk.

   a.

   b.

   c.

6. What are the five nursing fundamentals?

   a.

   b.

   c.

   d.

   e.

7. When should a person caring for the sick wash their own hands?

8. Name three ways by which a person can improve their dental hygiene.

   a.
   b.
   c.

PART IV – BASIC HOME NURSING AND HOME HEALTH PRACTICE

Quiz # 6

Name: ____________________

1. Name the five fundamentals to be observed in all home health practices.
   a.
   b.
   c.
   d.
   e.

2. Why should one always wear an apron when caring for the sick?

3. What should a person apply to a burn for home treatment?

4. When measuring out medicines by drops, the dropper should be held ____________.

5. A Community Health Aide should encourage every householder to keep a supply of aspirin in the home. True or False.

6. What are three things to remember about bandages when dressing a wound during first aid?
   a.

   b.

   c.

7. Describe the procedure in giving mouth to mouth resusitation.

8. Why and when should hands be washed?

9. Name three ways to take temperatures and what are the normal readings?

a.	a.
b.	b.
c.	c.

10. Why should a patient be made as comfortable as possible?

Quiz # 6 (Continued)

11. Bleeding of a wound can be slowed down or stopped by applying ________________ at the point of injury.

12. When visiting a home, a person asks you for "pain pills". What would you do?

13. What is body mechanics?

14. It is possible for an infection in the throat to result in earache. T or F

15. Where is pulse normally taken?

16. Describe the proper procedure to use when washing the hands.

17. Name five symptoms of physical illness which a CHA could look for when examining a person.

    a.
    b.
    c.
    d.
    e.

18. Why should burn blisters not be broken?

19. A hot water bottle should be filled to approx. ________________ it capacity.

20. When should syrup be put on a burn?

21. If you are asked to help a person who has been bitten by a rattlesnake, what would you do?

22. What information should be kept on a sick person's daily record?

23. The five "rights" in giving medications are:

    a.
    b.
    c.
    d.
    e.

Quiz 6 (Continued)

24. Medicines prescribed for a person can be used by others in the same family since all members of one family have the same genes. T or F.

25. What can a CHA do to encourage a person to use medicines properly?

26. Why should bed patients be bathed?

27. When a throat infection is present, the ____________ glands in the neck may become enlarged and tender.

28. When visiting a home you observe that a 4 year old child has dark spots on the mucous membranes of the mouth. What would you do?

29. What method would you use to take the temperature of an infant? Why?

30. A daily record of a patient's condition should always be kept because it helps the doctor to know how the patient is progressing. True or False

31. What is body mechanics?

32. Why should a back rub be given to bed patients?

33. The mercury in a thermometer should always be shaken down to _________ or below before taking the temperature.

34. Name at least five supplies which would be kept in a home "medicine chest" at all times.

35. During Clinic a doctor prescribes that a certain person place a hot water bottle on their neck for several hours each day. You visit the person's home and find out that they have no hot water bottle. What would you do?

36. A thermometer should always be held by the end opposite the _________.

Quiz # 6 (Continued)

37. A good place to store medicine is in a drawer next to the bed. T or F.

38. The docter has prescribed and given certain medicines for a child. You visit the home two days later and find that the child has not taken the medicine. The mother explains that the child just doesn't want to take the medicine. What would you do?

39. A good way to clean off a thermometer after its use is to hold it in very hot water for 5 minutes so that all the germs will be killed. T or F

40. When should a person's temperature be taken?

41. Where should medicines be kept in the home?

42. What should be done with medicines left after a person gets well?

43. How would you treat a burn?

44. A certain kind of tobacco mixed with cobwebs is a good temporary treatment for burns of the legs and arms. T or F

45. While visiting a bed patient in a home you notice that there are two small children in the house who have scabs and sores on their legs, arms and necks. What would you do?

46. You are asked to visit a certain home to help a sick person but you know that this person does not believe in "white mans' medicine". What would you do?

PART V

ENVIRONMENTAL HEALTH

PART V - ENVIRONMENTAL HEALTH

SECTION A – ENVIRONMENTAL HEALTH GENERAL

The purpose of this lecture is to:

- **impress upon the students the tremendous effects that sanitation has on determining the health of people,**
- **teach the students that good sanitation facilities are not only for convenience and comfort but are of direct concern to all health workers if the spread of communicable disease is to be prevented,**
- **teach the students that "Sanitation" includes much more than sewage disposal and water supply, and that the control of disease is dependent upon the inter-relationship of all subjects which we shall study under "Environmental Health",**
- **prepare the students to recognize adequate and inadequate sanitary practices and to disucss and learn realistic means of promoting improvement of poor sanitation on the reservation.**

1. Subjects included, in part, for CHA concern

a. Food sanitation

  (1) Milk

  (2) Meat

  (3) Other foods

b. Water supply

c. Wastes

  (1) Excreta disposal, without water carriage

  (2) Sewerage

  (3) Garbage and rubbish disposal

d. Insect control

  (1) Flies

  (2) Mosquitoes

  (3) Others

e. Plumbing

f. Housing

g. Control of nuisances

2. Table I - Interrelationship of environmental health activities (based on "The Environmental Health", CDC)
Table II - The Relationship of clinical entities to environmental health programs" see above.

TABLE I Interrelationship of Environmental Health Activities	Sewage Disposal	Food Hygiene	Housing	Vector Control	Refuse Control	Radiological Health	Institutional Sanitation	Industrial Hygiene	Air Pollution Control	Accident Prevention	Camp Areas	Disaster Sanitation	Water Supply
Water Supply	X	X	X	X	X	X	X	X		X	X	X	X
Sewage Disposal		X	X	X	X	X	X	X		X	X	X	X
Food Hygiene	X		X	X	X	X	X	X	X	X	X	X	X
Housing	X	X			X	X	X	X	X	X	X	X	X
Vector Control	X	X	X		X		X	X		X	X	X	X
Refuse Control	X	X	X	X		X	X	X	X	X	X	X	X
Radiological Health	X	X			X		X	X	X	X		X	X
Institutional Sanitation	X	X	X	X	X	X			X	X	X	X	X
Industrial Hygiene	X	X		X	X	X	X		X	X			X
Air Pollution Control		X		X	X								
Accident Prevention	X		X	X	X	X	X	X				X	X
Camp Areas	X	X	X	X	X			X		X		X	X
Disaster Sanitation	X	X	X	X	X	X	X	X	X	X	X		X

TABLE II

The Relationship of Clinical Entities to Environmental Health Programs

	Water Supply	Sewage Disposal	Food Hygiene	Housing	Vector Control	Refuse Control	Accident Prevention	Camp & Recreational Areas Sanitation	Disaster Sanitation
Typhoid Fever	X	X	X	X	X	X	X	X	X
Paratyphoid Fever	X	X	X	X	X	X	X	X	X
Shigellosis	X	X	X	X	X	X	X	X	X
Tularema	X	X			X		X	X	X
Brucellosis			X				X	X	
Diphtheria			X	X			X	X	X
Scarlet Fever			X	X			X	X	X
Septic Sore Throat			X	X			X	X	X
Streptococcal Food Infection			X	X			X	X	X
Salmonellosis			X	X	X	X		X	X
Tuberculosis			X	X				X	X
Staphylococcal Infections			X	X				X	X
Anthrax		X	X		X	X		X	X
Plague					X	X		X	X
Rat Bite Fever				X	X	X		X	X
Impetigo Contaglosa				X				X	X
Acute Bacterial Conjunctivitis				X	X			X	X
Infectious Hepatitis	X	X	X	X				X	X
Viral Encephalitis					X	X			
Rabies					X				
Common Cold			X	X				X	X
Misc. Viral Infections	X		X	X	X			X	X
Q Fever			X	X				X	X
Colorado Tick Fever				X	X			X	X
Rickettsialpox			X	X	X	X			
Rocky Mountain Spotted Fever				X	X			X	X
Urine Typhus Fever			X	X	X	X		X	X
Botulism			X	X		X		X	X
Staphylococcal Food Poisoning			X	X	X	X		X	X
Clostridium Welchii Food Poisoning			X	X				X	X
Amebiasis	X	X	X	X	X	X		X	X
Other Protozoan Infections	X	X	X	X	X	X		X	X
Ceptospirosis		X	X	X	X	X		X	X
Fungus Infections	X	X	X	X	X	X		X	X
Ancylostomiasis		X		X				X	X
Ascariasis		X	X	X				X	X
Taeniasis			X	X				X	X
Trichinosis			X	X	X	X			X

SECTION B – FOOD-BORNE DISEASES

The purpose of this lecture is to provide the student with an understanding of the common types of food-borne illness and methods of prevention.

1. Staphylococcus - food poisoning
   - a. **Bacteria in clusters**
   - b. **Staphylococci are everywhere**
   - c. **Illness caused by toxin**
   - d. **Toxin is heat stable (heat will not destroy it)**
   - e. **Occurs mainly in pastries, ham and carbohydrates**
   - f. **Enough toxin produced in 4 to 5 hours to cause illness.**
   - g. **Symptoms**
     - **(1) Vomiting (nausea)**
     - **(2) Diarrhea, usually**
     - **(3) Abdominal cramps**
     - **(4) No Fever**
   - h. **Prevention**
     - **(1) Good personal hygiene when preparing food**
     - **(2) Adequate refrigeration**
     - **(3) Immediate use of left-over foods.**
2. Botulism-Intoxication
   - a. **Anaerobic organism - no air**
   - b. **Spores on ground**
   - c. **Spores in improperly canned food - spores regenerate**
   - d. **Bacteria produces toxin**
   - e. **Toxin destroyed by heat. "Boil 15 minutes"**
   - f. **Is a toxin**

2. **Botulism-Intoxication (Continued)**

   g. Some symptoms

      (1) Breathing difficulty

      (2) Abdominal cramps

      (3) Double vision

   h. Prevention

      (1) Boil home canned food 15 minutes to destroy toxin.

      (2) Thorough washing of food before canning

      (3) Thermol processing at high enough temperature - pressure canners.

3. **Salmonella Infection**

   a. Aerobic organism - requires air

   b. Bacteria present in intestinal tract of poultry, rodents, pets and people.

   c. Occurs mainly in high protein food (eggs, milk, meats, fish, especially poultry)

   d. Occurs in food contaminated by rodents, insects, and other animals; also by unclean hands.

   e. Some symptoms

      (1) Chills, fever

      (2) Vomiting and nausea

      (3) Abdominal cramps

      (4) Diarrhea - several days

   f. Prevention

      (1) Good personal hygiene when preparing foods

      (2) Adequate storage and protection of foods

      (3) Proper and thorough cleaning of poultry and eggs.

4. **Streptococcus Food Poisoning**

   a. Aerobic organism (bacteria)

   b. Bacteria present in human upper respiratory tract.

4. Streptococcus Food Poisoning (Continued)

    c. Contamination of protein foods; example - meat, fish, cheese, milk

    d. Some symptoms

        (1) Diarrhea

        (2) Abdominal cramps

        (3) Sometimes fever

        (4) Vomiting and nausea

    e. Prevention

        (1) Sanitary practices

            (a) Do not sneeze or cough on food

            (b) Good personal hygiene

            (c) Do not taste food with common spoon

            (d) Do not use raw milk

5. Chemical Poisons - Food

    a. Rhubarb Poisoning

        (1) Poisoning in rhubarb leaves

        (2) Symptoms

            (a) Intermittent abdominal cramps

            (b) Vomiting

        (3) Prevention

            (a) Never eat rhubarb leaves

    b. Mushroom Poisoning

        (1) Poison in toadstools
        (2) Symptoms
            (a) Severe abdominal pain
            (b) Vomiting and thirst
            (c) Diarrhea

5. Chemical Poisons - Food (Continued)

b. Mushroom Poisoning (Continued)

(3) Prevention

(a) Do not eat "wild mushrooms"

c. Potato Poisoning

(1) Poison in sprouted green potatoes

(2) Symptoms

(a) Vomiting

(b) Headache

(c) Abdominal cramps

(3) Prevention

(a) Do not use sprouts or peel of sprouted green potatoes.

SECTION C – SUMMARY OF FOOD PROTECTION IN THE HOME

The purpose of this lecture is to provide the student with a working knowledge of the factors in and around the home which must be considered in the prevention and control of food-borne disease.

1. Factors which will be met in homes

a. Spoilage from molds, yeasts, or bacteria.

b. Insects: Flies, cockroaches, ants.

c. Animals: dogs, cats, rats, mice.

d. Contamination passing from person to food: The cook's hands on clothing; coughing, sneezing, or handling of food by sick persons in the home.

e. Unsanitary dish washing

f. Impure or unsafe water

2. Dealing with "Spoiled" foods

a. Molds, as on cheese, may be trimmed away and unaffected food eaten.

b. Fruit juices beginning to ferment (action of yeasts) may be boiled and used.

c. Foods "spoiled" by the action of bacteria must be thrown away.

3. Safe use of Perishable Foods

a. Unless refrigeration, or some other cooling method, is available, fresh meats and milk should be used immediately after being secured. Such milk-made sweet, moist foods as cream pies, custards, or puddings should be eaten on the same day they are prepared.

b. Short term alternates for refrigeration may be:

(1) Evaporation. Example: A closed container of milk, set in a pan of cold water, covered with a clean cloth which extends into the water, set in a safe place, and surrounded by free circulation of air.

(2) Cellars which are free from pests and deep enough to provide a lowered temperature. All perishable food should be covered.

(3) Covered hole in the ground. Examples: covered containers of lard, butter, or partly used cans of evaporated milk.

c. Leftover from Meals

(1) Keep to a minimum

(2) Cool as quickly as possible

(3) Keep covered.

(4) Serve as soon as possible

4. Protection of Dry and Semi- or non-Perishable Foods

a. Arrange storage of such dry foods as flour, unopened boxes of dry milk, and cereals in covered rat or mouse proof containers which are kept off the floor on blocks of wood or on tables.

b. After opening dry milk keep unused portion in original package, especially in the plastic bag, and store as flour is stored or in screw top jars. (Screw top gallon jars are often available in school kitchens)

c. Store potatoes, apples, squash, turnips in frost free, pest free cellars.

5. Protection from flies, other insects, and animals

a. Well fitted screens

b. Homes, when new ones are built, so construct as to keep out rats and mice.

c. Spraying of house, toilet buildings, and other "hang-out" for flies. Swat him. Catch him on sticky paper.

5. Protection from flies, other insects, and animals (Continued)

d. Remove food sources: scraps of food lying about, unwashed pots and pans, uncovered slop buckets, uncovered cooked foods.

e. Interrupt breeding: lime in toilets, covered garbage, disposal of food waste as soon as possible.

f. Keep flies off food while being prepared, off dishes, off baby's bottle, and off baby.

g. Keep dogs and cats out of the food preparation area.

6. Sanitary and/or safe Preservation of Perishable Foods for Winter Use

a. Food drying. Keep flies and animals off foods while they are being dried. Examples: meats, fruits, vegetables.

b. Canning:

(1) Open kettle and boiling water bath methods.

Both are satisfactory for such acid containing foods as tomatoes and fruits. Open kettle is satisfactory, also, for food to which vinegar has been added. Examples are: cucumber or beet pickles, and corn relish.

(2) Pressure canning is best for meats and such non-acid vegetables as green beans, corn and beets. (Unless these have been "pickled", in which case vinegar is used)

(3) Non acid foods which have been canned by the open kettle or water bath methods should be boiled for 15 minutes (20 for meats) before foods are tasted.

SECTION D – ARTHROPODS AND ANIMALS OF PUBLIC HEALTH SIGNIFICANCE

The purpose of this lecture is to acquaint the student with arthropods and animals of public health significance.

1. Insect-Borne Diseases

a. Encephalitis (several types)

(1) Etiologic Agent

(a) Viruses

(2) Vector

(a) Mosquitoes (several types)

1. Insect-Borne Diseases (Continued)

a. Encephalitis (several types) (Continued)

(3) Control measures

(a) Elimination of vector mosquito

(b) Elimination of mosquito breeding places

(c) Screening

(d) Repellents

b. Plague

(1) Etiologic Agent

(a) Pasteurella pestis

(2) Vector

(a) Rat flea

(3) Control measures

(a) Rat control

(b) Rat proofing

(c) DDT dusting

c. Relapsing Fever

(1) Etiologic Agent

(a) Borrelia duttonii

(2) Vector

(a) Ticks

(3) Control measures

(a) Avoidance of tick areas (Ticks live in the soil)

d. Endemic Typhus

(1) Etiologic Agent

(a) R. prowazeki

1. Insect-Borne Diseases (Continued)

    d. Endemic Typhus (Continued)

        (2) Vector

            (a) Lice

        (3) Control measures

            (a) DDT dusting of people and rat burrows

            (b) Rat control

            (c) Rat proofing

    e. Rocky Mountain Spotted Fever

        (1) Etiologic Agent

            (a) R. rickettsi

        (2) Vector

            (a) Wood and dog ticks

        (3) Control measures

            (a) Avoidance of tick areas

            (b) Removal of ticks

2. Animal-Borne and Other Diseases

    a. Rat-bite Fever

        (1) Etiologic Agent

            (a) Spirillum minus

        (2) Vector

            (a) Bite of rat

        (3) Control measures

            (a) Rat eradication

2. Animal-Borne and Other Diseases (Continued)

- b. Weil's Disease
  - (1) Etiologic Agent
    - (a) Leptospira ictorehaemorrhagiae
  - (2) Vector
    - (a) Urine of cats, rats, dogs, foxes, mice, etc.
  - (3) Control measures
    - (a) Food protection
    - (b) Vector control
- c. Rabies
  - (1) Etiologic Agent
    - (a) Virus
  - (2) Vector
    - (a) Bite of dog, fox, bat, cat, etc.
  - (3) Control measures
    - (a) Dog laws
    - (b) Dog vaccination
- d. Anthrax
  - (1) Etiologic Agent
    - (a) Bacillus anthracis
  - (2) Vector
    - (a) Hair, hide, flesh and feces of infected animals.
  - (3) Control measures
    - (a) Elimination of diseased animals
    - (b) Disinfection of hair, wool and bristles

2. Animal-Borne and Other Diseases (Continued)

- e. Tularemia
  - (1) Etiologic Agent
    - (a) Pasteurella tularensis
  - (2) Vector
    - (a) Bite of infected flies and ticks
    - (b) Handling of infected animals.
  - (3) Control measures
    - (a) Avoidance of bite of ticks and flies
    - (b) Use of rubber gloves when dressing rabbits, etc.

SECTION E – WATER

The purpose of this lecture is to provide the student with an understanding of the public health significance of a safe and adequate water supply.

1. Importance of safe and adequate supply

- a. Essential for all living things to carry on life
- b. Can contain harmful as well as non-harmful organisms
- c. Our main interests:
  - (1) Encourage use of more water for carrying on home health practices.
  - (2) Encourage use of safe (germ free) water

2. Bacteriology and microbiology

- a. Water-borne diseases
  - (1) See chart of water-borne diseases
  - (2) Description, transmission, control
- b. Microscopic examination of pond water (classroom)
  - (1) Observe micro-scopic and macro-scopic organisms
    - (a) Protozoans to arthropods (paramecium mosquito)

2. Bacteriology and microbiology (Continued)

   c. Coliform bacteria - indicators of contamination

      (1) Description, elementary identification

      (2) Presumptive test for Coliform (tubes)

      (3) Confirmed test for Coliform (tubes and plates)

      (4) Demonstrations of b&c...read results after incubation in laboratory

      (5) Milli-pore filter procedure, demonstration, laboratory.

   d. Water sampling

      (1) Importance

      (2) Routine

      (3) Re-sampling

      (4) When to collect, when not to collect

      (5) Demonstration, practice collection by class members

      (6) Water sample collections from Memorial home for analysis by State Laboratory. . . .class

3. Systems

   a. Sources

   b. Types

      (1) Community distribution system

         (a) General description

         (b) Basic plumbing

         (c) Treatment - chlorination and fluoridation...why

      (2) Community water point

         (a) General description

         (b) Good and bad features

3. Systems (Continued)

b. Types (Continued)

(3) Individual water system

(a) Wells

i. Drilled - description, etc.

ii. Bored - " "

iii. Dug - " "

(b) Springs - description

(c) Hauling - description

i. Contamination

(d) Disinfection

i. How

ii. Why

(e) Observation of source to aid in determining sanitary or insanitary supply

4. Chart of Water-Borne Diseases of Concern to Community Health Aide

DISEASE	SOURCE OF INFECTION	CONTROL MEASURES
Typhoid Fever	Bowel Discharges	Protection of water supplies Treatment of water supplies Sanitary disposal of feces Personal and family hygiene
Paratyphoid Fever	Bowel Discharges	Same as for Typhoid
Shigellosis	Bowel Discharges	Same as for Typhoid
Gastroenteritis	Bowel Discharges	Same as for Typhoid
Amebiasis	Bowel Discharges	Same as for Typhoid
Infectious Hepatitis	Bowel Discharges	Same as for Typhoid

SECTION F – SEWAGE DISPOSAL

The purpose of this lecture is to:

- impress on the students how inadequate sewage disposal affects health of a community.
- explain the role of CHA in promoting adequate sewage disposal in a community.
- review literature (pamphlets, etc.) to better understand the sewage disposal program; to be aware of the literature available for distribution.
- explain the field visits scheduled for observing adequate and inadequate sewage disposal in a community.

1. Sewage - Human body wastes, kitchen and bathroom wastes

a. Bacteria and parasitology of sewage

b. Diseases directly associated with sewage disposal on the reservation. (See chart entitled "Water-borne Diseases")

c. Methods of disposal

(1) Individual

(a) General description

(b) Types - privy, septic tank

(c) Importance of care and maintenance

(2) Community

(a) General description

(b) Types

(c) Treatment

2. Field Trip

a. What to look for while observing lagoons, privies, and septic tanks installments

3. Review Biology of flies

a. Habits, eating

b. Leg hairs

4. Introduction to PL 86-121 (one day is devoted to lectures, discussions, slides and demonstrations of PL 86-121)

5. Literature available for distribution to families

6. CHA role in promoting better health among people as concerns sewage

   a. Promotion of good personal and family hygiene

      (1) Hand washing and bathing (use more soap and water)

      (2) Cleanliness during food preparation and storage.

   b. Fly control

      (1) Clean premises of garbage

      (2) Fix-up privy to make it air-tight, use of lime.

      (3) Spray equipment and insecticides available at CHA office for use by families.

      (4) Screening available from tribe

      (5) Work through and in consultation with PHS Environmental Health Office people.

      (6) Distribute and explain pamphlets and other literature to families - convince people that flies are one of the greatest enemies that man has.

SECTION G – ROLE OF COMMUNITY HEALTH AIDES IN PL 86-121 ACTIVITIES

The purpose of this lecture is to:

- review what PL 86-121 includes, its purpose and what it is expected to achieve.
- review the PL 86-121 literature available for distribution to families
- define and explain the CHA activities before, during and after a PL 86-121 project is instituted on the reservation.

1. What is PL 86-121?

   a. A law passed by Congress which gives the Public Health Service the authority to join into an agreement with the Pine Ridge Indian Tribe and install water facilities and waste disposal facilities at individual Indian homes on the reservation.

   b. This is an attempt to provide sufficient amounts and pure water for the families on the reservation as well as providing adequate means of sewage and garbage disposal -- the overall objective is to reduce the spread of communicable disease associated with existing sanitary conditions.

2. The duties of the CHA in relation to PL 86-121 Activities includes the following:

a. The Aides assist the PHS Environmental Health personnel to determine the extent of need among the reservation homes for sanitary facilities.

(1) By making surveys at Indian homes when requested to do so by the Field Engineer.

(2) By observing conditions and lack of sanitary facilities at district homes during regular CHS visits and bringing problem situations to the attention of the Team Leader for referral to the PHS Field Engineer and the Tribal representative.

b. Convince district families of the need for participation in sanitary facilities construction project. Direct your discussion with families on the fact that sanitary facilities (running water, toilet, sink, garbage pit) will help to reduce diseases which are now affecting the families.

(1) pure water will help cut down on the diarrhea now affecting many families.

(2) the people will be able to use more water for bathing, cleaning house, dishes, etc.

(3) garbage pits will make it possible to dispose of garbage so that the fly population will be reduced.

(4) an inside toilet will eliminate the necessity of walking outside to the privy thereby reducing the chances of contacting colds, flu, etc. during the winter time as well as eliminating a place for fly breeding.

c. Prior to actual construction activities, the CHA can assist in explaining the participation which is required of family members while the facilities are being installed to the family:

(1) The importance of householders being home when the project crew is working at the home.

(2) The unskilled labor required of householders, such as

(a) Digging under the house at a place designated by the project workers so that the plumber can connect the water and sewage lines to the inside piping.

(b) Covering the trenches with earth after the pipes have been connected

(c) Assisting the project workers with the laying of tile drain fields, helping the plumber with the inside plumbing, helping the workers install the garbage pit.

(d) Be available and do any other unskilled labor as requested by the project workers.

(3) Encourage the families to complete their role in the project.

Example: After the project workers have installed the facilities, the householder must cover all trenches, level off the ground, and remove all trash from around the home so that the yard will be neat and free of debris.

(4) Teach family members how to use the new facilities properly.

(a) Encourage the free use of water, however, encourage family members not to waste water.

i. Accent personal hygiene, - hand washing, baths, - this should especially be accented among children to help cut down on skin sores.

ii. Housekeeping - dish washing, house cleaning, laundry.

(5) Teach families proper care and maintenance of the facilities. Refer to the folder containing the literature on PL 86-121. Note the various pamphlets in the folder. Each project family receives this folder. You should encourage the family to look at the literature and use it as a guide, especially the booklet entitled "Care and Maintenance of Sanitary Facilities". This booklet is easy to understand and shows, by diagrams how to maintain the sanitary facilities properly. (Classroom review of the booklet.) You must be thoroughly familiar with this booklet and the rest of the literature in the folder so that you will be able to thoroughly explain it to the families during your visits. Use the folder as a guide.

d. Background organization for planning a PL 86-121 Project

(1) Involves agreement between the Tribe and PHS

(2) Survey (up to date) of specific needs at each Indian home to be included in the "Project".

(3) Project request, proposal to be submitted by the Tribe.

(4) Other administrative work necessary prior to actual construction of facilities.

(5) Usually 2 or more years needed to complete the above items before construction can start.

e. Rating of priorities

(1) Urgency of health need

(2) Feasibility

(3) Ability and willingness of Tribe to assume responsibility of completed systems.

2. The duties of the CHA in relation to PL 86-121 Activities (Continued)

e. Rating of priorities (Continued)

   (4) Participation of Tribe

   (5) Drawing up of regulations and ordinances

   (6) Relationship of Project to overall plans

f. Participation of community and Tribe

   (1) Tribe must write up own project proposal

   (2) Individual does the unskilled labor during construction

g. Completion of construction

   (1) Community and individual has the responsibility for complete control (maintenance and upkeep) of the installed facilities.

h. Appropriation ($)

   (1) The U.S. Congress approves the appropriation using the stated priorities as a guideline.

i. Role of PHS Environmental Health personnel

   (1) Preliminary survey of proposed project area

   (2) Administration of project

      (a) Contracting

      (b) Supervision of construction

   (3) Technical aspects of projects

      (a) Skilled labor

      (b) Determining proper installation or construction.

j. Role of Community Health Aides

   (1) Advise community of availability of PL 86-121

   (2) Meet with community leaders to initiate project proposal

   (3) Educate project recipients as to proper use and care (including maintenance) of the installed facilities.

SECTION H – REFERENCE BOOKS, PAMPHLETS AND FILMS

The following materials were available and utilized in conjunction with lectures under the heading "Environmental Health".

1. Books

a. Municipal and Rural Sanitation, Ehlers and Steel

b. Environmental Sanitation, Salvato

2. Pamphlets

a. "Care and Maintenance of Sanitation Facilities," DIH, PHS

b. "Introducing Your Indian Sanitarian Aid," DHEW, PHS, DIH

c. "How to Handle Garbage and Rubbish", DHEW, PHS, DIH

d. "Individual Type Sanitation Facilities for Indians Under Public Law 86-121"

e. "Flies Carry Disease", DHEW, PHS, DIH.

f. "The Engineer in the American Indian Health Program", DHEW, PHS, DIH

g. "How to Prevent Diarrhea", DHEW, PHS, DIH

h. "Home Sanitation", DHEW, PHS, Health Information Series, No. 39, PHS Publication No. 231, rev. 1962

i. "Safe and Sanitary Home Refuse Story", DHEW, PHS, BSS, DEEFP, Washington, D.C.

j. "Lets Be Friends for a Long Time", DHEW, PHS, DIH, PAO

k. "Infectious Hepatitis", DHEW, PHS, DIH

l. "We're the Cleanup Kids", DHEW, PHS, DIH, PAO

m. "On Guard to Help You", DHEW, PHS, DIH, PAO

n. "Scabies", DHEW, PHS, DIH, PAO

o. "From Hand to Mouth", PHS, Publication #281, U.S. Gov't Printing Office, Washington, D.C.

p. "Sanitation Facilities for Indians", DHEW, PHS, DIH, PAO

q. "For Better Indian Health - Guide for Control of Insects and Household Pests", DHEW, PHS, DIH, PAO, 7-64, 1000

3. Films and Slides

a. "Domestic Vector Control", DHEW, PHS, CDC

b. "Basic Principles of Refrigeration", DHEW, PHS, CDC

3. Films and Slides

c. "Kitchen Habits", DHEW, PHS, CDC

d. "Sanitary Storage and Collection of Refuse", DHEW, PHS, CDC

e. "Sanitary Landfill - Operation Procedures", DHEW, PHS, CDC

f. "Sanitary Landfill in a Small Community", DHEW, PHS, CDC

g. "Sanitary Techniques in Rat Control", DHEW, PHS, CDC

h. "Rabies Control in the Community," DHEW, PHS, CDC

i. "Sampling and Testing Drinking Water", DHEW, PHS, CDC

j. "PL 86-121 Slides, DHEW, PHS, DIH

4. Models

a. Plastic Model - working demonstration of septic tank, drain field and plumbing.

b. Model of water and waste disposal facilities.

5. Drawings

a. Black widow spider

b. Cockroach

c. Fly

d. Mosquito

e. Crab louse

f. Body or head louse

g. Bed bug

h. Flea

i. Mite

j. Hard Tick

k. Soft Tick

ENVIRONMENTAL HEALTH

Quiz #1

Name: ______________________________

1. Name at least five subjects which are of concern to Environmental Health:

a.
b.
c.
d.
e.

2. What does CONTAMINATED mean?

3. Name three "agencies" through which food may cause suffering or death:

a.

b.

c.

4. Name the four "food-borne" diseases and list the ways of preventing each one.

a.

b.

c.

d.

5. What causes food to spoil?

a.

b.

c.

6. Name four ways that different foods can be protected in homes on the reservation.

a.

b.

c.

d.

ENVIRONMENTAL HEALTH

Quiz #2

Name: ______________________________

1. What do we mean by "vector of disease"?

2. Name four insect vectors:

   a.

   b.

   c.

   d.

3. Foxes, dogs, cats and bats play an important role in transmitting ________________ to man.

4. How can Tularemia be prevented?

5. Name three ways by which insects transmit diseases and harm to humans and give one example of each:

a.	a.
b.	b.
c.	c.

6. How could families in rural areas of the reservation dispose of their garbage?

7. Name four household "insects" which should be eliminated:

   a. b.
   c. d.

8. Name three ways of eliminating insects:

   a. c.
   b.

9. Why is a fly so dangerous to health?

ENVIRONMENTAL HEALTH

Quiz #3

Name: ______________________________

1. Why is water so important in the transmission of disease?

   a.

   b.

2. Name two ways by which the use of water could reduce the disease incidence among families on the reservation:

   a.

   b.

3. Why are water samples tested for Coliform bacteria? (Include in your answer where these bacteria are found)

4. Name three sources of water:

   a.

   b.

   c.

5. When should a water sample not be collected for bacteriological analysis and why?

6. How is a water source disinfected, why and when?

7. Describe the procedure in collecting a water sample for analysis.

ENVIRONMENTAL HEALTH

Quiz #4

Name: ______________________________

1. What does "contamination" mean?

2. Why is water so important in the transmission of disease?

   a.
   b.

3. You visit a family and see many flies in the home. What would you tell the people in the house and what would you do?

4. Bacteria growth on food is retarded by low temperatures. T F

5. What is meant by "breaking the chain of transmission" when controlling the spread of disease? Give examples.

6. Define "vector".

7. The following are the "food-borne" diseases. Opposite each one tell how that disease can be prevented:

   a. Staphyloccus food poisoning -

   b. Botulism intoxication -

   c. Salmonella infection -

   d. Streptococcus food poisoning -

8. The first thing to look for when an outbreak of SHIGELLOSIS occurs in a community is where the ____________________ is. Correcting this will prevent further spread of the disease.

Quiz #4 (Continued)

9. Five subjects under the heading of ENVIRONMENTAL HEALTH which are of major concern to the Community Health Aide are:

   a.
   b.
   c.
   d.
   e.

10. Is there an insect and rodent control program in your community? If so, how does it work?

11. When should you not collect a water sample for bacteriological analysis? Why?

12. Bacillary dysentery is another name for _______________ .

13. What is "tularemia" and how is it transmitted?

14. What "agents" cause food to spoil?

    a.
    b.
    c.

15. Flies, not dogs, should be called mans' best friend since they live in such close association with each other. T or F

16. The bed bug and crab louse are of public health concern. Why?

17. What are the control measures for "gastroenteritis"?

18. How could people in the community protect perishable food from spoilage if they do not have refrigerators?

19. Although mosquitoes can transmit diseases, of major concern in a community is that _______________ ___________ often results from mosquito bites.

Quiz #4 (Continued)

20. Name three ways that babies can be protected from getting diarrhea:

    a.
    b.
    c.

21. The majority of cases of intestinal disease in a community could be prevented by proper hand washing. T F

22. Name at least three "agencies" through which food may cause suffering or death:

    a.
    b.
    c.

23. How can rabies be controlled?

24. Insects transmit diseases and/or cause harm to humans by:

    a. ______________________ tramsmission
    b. ______________________ transmission
    c. ______________________

25. How is sewage in your community disposed of? ____________________________

26. Refer to your answer to question #25. How does it work?

27. What are Coliform bacteria?

28. Where are you most likely to find black widow spiders?

29. Flies and cockroaches spread disease mostly by:

30. What is "scabies"? Describe it

Quiz #4 (Continued)

31. What is PL 86-121 and what do we expect to accomplish by it?

32. What is a septic tank for?

33. Name three ways by which garbage can be disposed of in a sanitary manner:

    a.
    b.
    c.

34. Skin diseases normally seen on children at the clinics are of concern to the Community Health Aide. T F Why?

35. How can you encourage people to "want" a PL 86-121 project?

36. What will your role be during and after PL 86-121 projects on the reservation?

37. What do the reservation sanitarians do?

38. List 10 problems which you may come across when visiting homes on the reservation which you would refer to the PHS Environmental Health people:

    a.
    b.
    c.
    d.
    e.
    f.
    g.
    h.
    i.
    j.

PART VI

HOME MANAGEMENT

PART VI - HOME MANAGEMENT

SECTION A – FAMILY NUTRITION AND FOOD MANAGEMENT

The purpose of this lecture is to acquaint the student with methods and procedures for securing, preparing and serving nutritious food and management of food dollars to obtain maximum benefits.

1. Economic Consideration

All of the reservation is economically depressed. Few families have enough income or other resources to meet all of the needs of their daily living. For this reason, encouragement and guidance are needed in:

a. Full utilization of any available "free food".

b. Food production such as gardening and growing home meats.

c. Wise use of money available for food.

2. Free Foods

a. Wild Fruits. In "good fruit years", people can---if they have jars---plums, various berries, choke cherries, currants. Some when they have no jars preserve fruits by drying.

b. Wild greens and occasionally such roots as wild turnips. These are rare.

c. Leaves, roots, and bark for making Indian tea, gathered by some of the older people. They may be used fresh or dried for winter use. Peppermint is the most common, though occasionally people use roseberries and other parts of the wild rose plant. Others use the inner bark of the elm tree in spring and summer.

d. Some wild game is obtained; deer, elk, and perhaps smaller animals such as rabbits and birds.

e. Surplus commodity foods. (See 4)

3. Food Production

a. Lack of rainfall and scarcity of water, both endemic to the area, make gardening and the growing of feed for fowl and farm animals difficult, if not impossible. However, some families having windmills or other water supplies and those living along creek bottoms do have gardens. A goodly number of older people tell of having had gardens while raising their families.

b. Vegetables most often grown are squash, corn, cucumbers, radishes, onions, lettuce, potatoes, and carrots. Occasionally a family has chickens.

4. Surplus Commodity Foods

a. Presently included in these "free foods" are:

Enriched flour
Rolled whole wheat
Enriched, whole grain yellow cornmeal
Enriched rice
Lard
Butter or margarine
Peanut butter
Cheddar cheese
Dry beans or split peas
Canned beef
Canned chopped meat
nonfat dry milk

b. Distribution is carried on by the Tribe for nine months of the year; September through May.

c. In general, the foods received by a given family for a given month may provide as much as fifty per cent of the calories needed for the family. However, break downs in the system occur and certain items often seem to be in short supply.

d. Unfortunately, the per person distribution of nonfat dry milk was reduced two years ago from 4 1/2 pounds (1 box) to one pound per month. One pound is equivalent to 4 quarts of liquid skim milk. One pint of milk (or its equivalent in foods made from milk) per person per day is a reasonable minimum objective for the maintenance of a good nutritional state.

e. The abundance of enriched grain foods probably insures an adequate intake of carbohydrates and a fair supply of the vitamins of the B complex. While a diet based in large part on commodity foods contains considerable protein, the major part of this protein is of vegetable origin, and so needs supplementation with such animal proteins as milk, lean meats, cheese, or eggs.

5. Planning For Family Meals

a. For those families who receive commodity foods, it seems reasonable to consider them the basis of the diet. Those not eligible for commodities would do well to purchase the same kinds of foods, that is, flour for home baking, cereals to be cooked, peanut butter, dry beans, canned lean meats, lard, butter or margarine, and nonfat dry milk. All of these are low-cost highly nutritious items.

b. In either case, foods suggested for purchase should be those which will supplement home produced or gathered and commodity (or commodity type) items. In general, these foods would be:

(1) Whole milk for children under one year of age who are not breast fed, and milk for other members of the family when commodity milk fails to provide the equivalent of one pint liquid milk per person per day.

5. Planning For Family Meals (Continued)

(2) Fresh or canned vegetables and fruits, with emphasis on those which are highest in vitamin C.

(3) Liver and other organ meats.

(4) Lean meats, fresh, canned, or dried; or fish; and eggs.

c. To assist in this area, the Nutrition Branch of DIH has prepared the simple teaching aid, "Food For A Strong Healthy Family". Free Foods, including commodities; low cost foods, and culturally acceptable foods are featured. These leaflets are available in quantity for group or individual instruction, and may be secured from the nutrition office.

6. Food Selections Based on Costs and Food Values

a. Nonfat dry milk is the least expensive form in which milk may be bought. It differs from whole homogenized or evaporated milks only in the absence of butter fat and the two soluble vitamins A and D. It is suitable for all members of the family who eat varied diets. Since skim or butter milk has only one half as many calories as whole milk, they are preferable for the obese or those needing low fat diets.

b. At best, vegetables and fruits are expensive in this part of the country. For this reason, those suggested for purchase should make definite contributions nutritionally and be as low in cost as possible. The three most important nutrients provided by vegetables and fruits are iron and vitamin A and C.

(1) Dark green leaves provide iron.

(2) Dark green and yellow colored vegetables provide vitamin A.

(3) Citrus fruits, green leaves, potatoes, raw cabbage, tomatoes, and the wild rose berry (rose hips) provide vitamin C.

c. In addition all fresh young growing plants have appreciable amounts of this vitamin. With these factors in mind, Public Health Service recommends the vegetables and fruits which are named in "Food For A Strong Healthy Family".

d. Organ Meats, especially liver, are liked by almost all Pine Ridge people and are among the less expensive meats available. Moreover, they offer more, nutritionally, than other parts of the animal. Lean Meats are much higher in food value than fat meats. The latter contribute calories only. Choices made by individual families are influenced by the type of cooking facilities in the home and by the presence of refrigeration. In some cases, especially in the summer months, canned meats or fish may be helpful.

e. Because breads, cereals, potatoes, and dry beans are comparatively cheap as calorie sources, they are usually used extensively by low income groups. This practice, common in this area, is a wise one, but does suggest food choices which will carry the maximum possible in essential nutrients. Thus it is well to encourage whole grain and enriched products.

f. Sugar and other highly concentrated sweets provide mostly calories and little in the way of protective nutrients. They should be used sparingly.

7. Suggestions for Spending Food Money Wisely

a. In milk and cheese group

(1) Use nonfat dry milk for all members of the family, who eat a varied diet. One cup of skim milk made from dry milk plus two teaspoons butter equals one cup whole milk. County 1 1/4 ounce yellow cheese equal to 1 cup milk.

(2) Avoid unusual or exotic cheeses, whipping cream, and sweetened condensed milk.

b. In vegetable and fruit group

(1) Plan first of all for one or more foods to give vitamin C. The least costly will be:

(a) Tomatoes or tomato juice, fresh or canned.

(b) Oranges

(c) Grapefruit

(d) Orange or grapefruit

(e) Raw cabbage

(f) Potatoes, especially in the first weeks after digging.

(2) Fresh vegetables and fruits are least expensive when in season. For example, the cost of fresh tomatoes, green peppers, and fresh peaches are usually prohibitive, but low enough in one or more of the late summer, or fall months to justify their use even in a low cost food budget.

(3) Choose canned fruit juices rather than fruit drinks. The per can cost of drinks is lower than the per can cost of juices but the food value is also lower.

(4) Choose canned vegetables and the lower priced canned fruits in preference to frozen ones.

(5) Use cooked vegetables from the family's soup for baby. Often money spent for small cans of baby vegetable could be used to buy vegetables for the whole family.

(6) Avoid items not commonly used in the general geographic area. Examples: Asparagus, broccoli, dates, avacodos and pineapple.

(7) Buy fresh raw potatoes rather than potato chips or "instant potatoes".

7. Suggestions for Spending Food Money Wisely (Continued)

c. In meat group, fish, and egg group:

(1) Use organ meats, especially liver or kidney, often (perhaps once each week). These are among the least expensive meats available, the highest in food values, and are liked by Lakota people.

(2) In selecting other fresh meats, consider hamburger or ground meat, lean boiling beef, lean stew meats, chuck roast. These cost less per pound, and have less waste than such quick cooking items as steaks with much bone, chops, and frying chicken.

(3) Consider canned meats and fish. But avoid such items as canned stew, hash, or meat soups. These will have small amounts of meat only and will not be worth the money spent.

(4) Use eggs freely during spring and summer months, the seasons, when they are less expensive.

d. In bread and cereal group

(1) Homemade breads, and such foods, as rolls, cookies, doughnuts, cakes, and pies, are better and much less expensive than the store bought.

(2) Cereals to be cooked at home cost less per pound and "go farther" than such prepared cereals as cornflakes or puffed rice.

(3) Mixes and partially prepared foods are convenient but expensive. Examples are: cake and pancake mixes, frozen batters ready for baking, TV dinners.

e. Miscellaneous

(1) Such items as the following are too expensive to be purchased for use in households where "every penny counts":

Fancy nuts
Cocoanut
Jell-O
Mushrooms
Exotic or unusual seasonings
Condiments
Pineapple
Canned dried beans
Marashino cherries
Olives
Whipping cream
Honey
Breakfast bacon
Canned soups
Fancy crackers
Canned fruits
Canned cooked potatoes
Butter

8. Educational Materials for Low Income Groups

a. Suggestions made must seem possible and sensible to those receiving them.

b. Recipes given to individuals or used in group work should:

(1) Be designed to fill a need such as increased use of milk, improving protein content of family meats, or protecting food dollar by using free foods.

(2) Be designed to promote the use of all "free foods" available.

8. Educational Materials for Low Income Groups (Continued)

(3) Contain culturally acceptable foods and foods generally liked by the group.

(4) Contain only "store bought" ingredients which are low in costs and readily available.

(5) Use as few different ingredients as possible. Often the omission of seasonings will make recipes unacceptable otherwise usable.

(6) Require reasonable lengths of cooking time, since fuel is a problem.

(7) Be so designed as to be adjustable to limited cooking equipment and facilities.

9. Educational Helps Available From Nutrition Branch, PHS Pine Ridge

a. Guides for low cost meal planning, available in quantity:

(1) Food For A Strong Healthy Family

(2) Food For The Prenatal Mother

(3) Food For The Nursing Mother

(4) Food For Your Child From One To Six Years

b. Low cost recipe leaflets, available in quantity, and featuring:

(1) Nonfat dry milk in drinks, soups, and in other combinations.

(2) Commodity cereals used as meat extenders, in desserts, and in breads.

(3) Such low cost vegetables as cabbage and canned tomatoes, and potatoes.

c. Low cost recipe booklets featuring recipes used in 1963 and 1964 in Lakota Nutrition Classes on the Reservation. These are available in limited numbers:

(1) Wahanpi Na Aguyapi (Soup and Bread)

(2) Talo Na Waskuyeca Woyute (Meat and Dessert)

10. Some Basic Concepts in Nutrition (Interagency Committee on Nutrition Education - 1964)

a. Nutrition is the food you eat and how the baby used it.

(1) We eat food to live, to grow, to keep healthy and well, and to get energy for work and play.

b. Food is made up of different nutrients needed for health and growth.

   (1) All nutrients needed by the body are available through food.

   (2) Many kinds and combinations of food can lead to a well-balanced diet.

   (3) No food, by itself, has all the nutrients needed for full growth and health.

   (4) Each nutrient has specific uses in the body.

   (5) Most nutrients do their best work in the body when teamed with other nutrients.

c. All persons, throughout life, have need for the same nutrients, but in varying amounts.

   (1) The amounts of nutrients needed are influenced by age, sex, size, activity, and state of health.

   (2) Suggestions for the kinds and amounts of food needed are made by trained scientists.

d. The way food is handled influences the amount of nutrients in food, its safety, appearance, and taste.

   (1) Handling means everything that happens to food while it is being grown, processed, stored, and prepared for eating.

e. Interagency Committee on Nutrition Education

   (1) Consists of representatives from:

      (a) Department of Health, Education, and Welfare

         i. Division of Chronic Diseases

         ii. Division of Indian Health

         iii. Food and Drug Administration

         iv. Children's Bureau

         v. Office of Education

      (b) Department of Agriculture

         i. Agricultural Marketing Service

         ii. Agricultural Research Service

         iii. Federal Extension Service

         iv. International Agricultural Development Service

      (c) Department of Interior

         i. Bureau of Commercial Fisheries

10. Some Basic Concepts in Nutrition (Continued)

e. Interagency Committee on Nutrition Education (Continued)

(d) Interdepartmental Committee on Nutrition for National Defense

(e) American National Red Cross

(f) Food and Agriculture Organization of the United Nations.

SECTION B – HOUSEKEEPING SCHEDULES

The purpose of this lecture is to acquaint the student with the concepts that:

(1) the expert homemaker is an executive; (2) she tries to keep her home in good order in the most efficient way possible; (3) she wants to spend the least amount of time and energy; (4) she must have a plan or schedule for housekeeping in order to do this; and (5) with a system of work--a plan for housework duties, a plan for shopping, and a plan for cooking--homemaking can be easier and more enjoyable.

1. General Tips and Some Facts That Will Help the Homemaker Get Her Work Done

a. Put the apartment in order daily--pick up newspapers, put away clothing, make beds and dust.

b. Wipe up anything that is spilled at once--on the stove, cabinets, refrigerator or floor.

c. Watch foods when starting to cook, thereby preventing boiling over or burning. The following are some hints that will be helpful in reducing ths stove--cleaning job.

d. Boil foods slowly--there will then be no spatter on the stove. When foods come to a boil, turn down the flame.

e. For frying with a small amount of fat, use a low flame for better browning and less spattering.

f. Use a larger size pan in cooking foods that run over easily, such as macaroni, spaghetti, rice or beans.

g. Keep the oven temperature low in roasting meats--the meat will be juicier, there will be less shrinkage and the oven will remain clean, (especially if using an uncovered roasting pan.)

h. When baking pies, keep the juices from running over by building up the edges of the crust. Use a cooky sheet under the pie pan to catch the juice, cover the rack, or line the bottom of the oven (taking care not to cover the gas opening) with aluminum foil.

1. General Tips and Some Facts That Will Help the Homemaker Get Her Work Done (Continued)

j. Protect the areas under the burner and the drip pans with aluminum foil.

k. Make a meal plan for the week.

l. Plan meals so that it will not be necessary to shop more than once or twice a week. Make up a shopping list from the meal plans and take to store with you. Watch newspapers at end of the week for bargains.

m. Do not leave dirty dishes in the sink. When washing dishes, spare the detergent--it is time-consuming to rinse a lot of dishes and the sink after washing dishes. After rinsing in hot water, allow them to drain dry on the sink or drainboard. It is not necessary to dry them.

Soak pots and pans in hot water and detergent at once after emptying.

n. Remove garbage once, daily; twice, if necessary.

2. Suggested Daily, Weekly, and Monthly Cleaning Schedule

a. Kitchen and Pantry

(1) Daily Cleaning:

- (a) Put the pantry and cabinet shelves in order.
- (b) Clean sink after each use.
- (c) Clean table off after each use.
- (d) Keep working areas cleaned off after each use.
- (e) Wipe off cabinets if there are any marks on them.
- (f) Wipe off spots from the floor; dry mop or sweep.
- (g) Empty garbage can and line with newspapers or paper bags.

(2) Weekly Cleaning

- (a) Clean stove and burners. (See directions under "Stove and Burners")
- (b) Clean Refrigerator
- (c) Wash window sills
- (d) Wipe off wooden shelves with a dry cloth. If covered with shelving paper.
- (e) Wipe off paper with a dry cloth (soft) occasionally.
- (f) Wash floor. You may have to wash floor oftener than once a week. (See section on "Floors" for directions.)

(3) Monthly

- (a) Wash windows, frames, sills, and woodwork.

2. Suggested Daily, Weekly, and Monthly Cleaning Schedule (Continued)

b. Bedrooms

(1) Daily Cleaning

(a) Open window and air beds for a while. Do not put bedding out of windows.

(b) Make beds.

(c) Dust furniture, doors, and window sills.

(d) Sweep and roll up rug.

(e) Dry mop floors

(2) Weekly Cleaning

(a) Same as above for daily cleaning.

(b) Dust doors, woodwork, light fixtures.

(c) Brush outside window sills with stiff brush.

(d) Turn mattress.

(3) Monthly Cleaning

(a) Clean springs and mattresses. (See directions for Springs and Mattresses)

(b) Dust walls with soft brush. (See directions for Walls)

(c) Wash windows, frames and sills.

c. Living Room

(1) Daily Cleaning

(a) Pick up newspapers, clothing and toys, etc. Empty ash trays.

(b) Straighten pillows

(c) Air out

(d) Dust furniture, pictures, mirrors, and lamps.

2. Suggested Daily, Weekly, and Monthly Cleaning Schedule (Continued)

c. Living Room (Continued)

  (1) Daily Cleaning (Continued)

    (e) Dust doors and window sills.

    (f) Carpet--sweep rug

    (g) Dry-mop floor.

  (2) Weekly Cleaning

    (a) Move furniture to dust behind and under.

    (b) Dust off drapes with soft brush or with sweeper attachment.

    (c) Vacuum rugs or carpet; or sweep thoroughly, if no vacuum sweeper.

  (3) Monthly Cleaning

    (a) Wash floor with wet mop (See directions on Floors)

d. Bathroom

  (1) Daily Cleaning

    (a) Straighten up

    (b) Scour basin, bathtub and outside of toilet

    (c) Wipe up spots on floor. Wash floor if necessary.

  (2) Weekly Cleaning

    (a) Clean metal or bathroom fixtures

    (b) Clean toilet bowl--use disinfectant

    (c) Wipe off mirror, spots on walls and on door.

    (d) Wash floor.

  (3) Monthly Cleaning

    (a) Clean medicine cabinet, Remove contents and wipe bottles, etc.

    (b) Wash shelves

    (c) Tile walls may be wiped up. (See title "Walls")

3. Kitchen Equipment and Areas

a. Refrigerator

(1) Wash off finger marks often

(2) Must be cleaned every week to keep sanitary and sweet--smelling

(3) Wipe up spilled food immediately--it will be less work to keep clean

(4) Spread newspapers on floor to protect floor while cleaning.

(5) Outside

(a) Clean with mild detergent or soap

(b) Rinse thoroughly with plain water and dry off

(c) Special cleaning waxes made for enameled surfaces may be used for cleaning.

(d) Do not use harsh cleaning or scouring powders on inside or outside of refrigerator

(6) Inside

(a) Defrost before cleaning: Allow refrigerator to come to room temperature before washing

(b) Defrost and clean refrigerator before frost is 1/4 inch thick or about every week or 10 days. Too much frost slows down the cooling of foods, temperature may go up, uses 3-4 times more electricity, refrigerator works less efficiently.

(7) How to Defrost

(a) Remove ice trays before defrosting

(b) Have drip tray in place and empty

(c) Turn control to Off or Defrost

(d) Remove frozen foods and wrap in newspaper to prevent defrosting

(e) Do not use sharp instruments to remove ice.

(f) When all frost is melted, empty drip tray of water, remove food shelves and glasses and/or plastic accessories.

3. Kitchen Equipment and Areas (Continued)

a. Refrigerator (Continued)

(8) Cooling unit -- wash inside and out

(a) Make sure that all frost is gone, by using a sponge squeezed out of warm water containing at least one tablespoon of baking soda for each quart of water.

(b) Wash interior surfaces with this soda water. Never use scouring powder-- this will scratch.

(c) Rinse thoroughly with water and wipe with dry, soft cloth.

(d) For stains, use dry baking soda on squeezed out sponge and rub off. Rinse.

(9) Doors

(a) Plastic doors should be allowed to reach room temperature before washing clean with cloth and mild soap, if greasy use warm water. Rinse with clear water and dry.

(10) Door Gasket

(a) Keep free from fat (butter, grease, etc.) and acids (fruits, etc.)

(b) Wash with mild soap and water. Rinse and dry.

(11) Shelves and Ice Trays

(a) Wash in hot suds in the sink, rinse, dry and replace.

(b) Do not fill ice cube trays full.

(c) Plastic trays should be allowed to reach room temperature before washing with clean cloth, baking soda and warm water.

(d) If trays are waxed, do not use hot water (wax will be removed) use warm water instead.

(12) Butter conditioner (if any)

(a) Clean with cloth dampened with baking soda. Rinse well with clear water and dry.

(13) Grill

(a) Check the grill at the bottom for lint accumulation. Lint can be brushed off with a brush.

(14) Evaporating pan

(a) Located at bottom, behind the grill; should be cleaned regularly

b. Stove

(1) Cool range before cleaning to avoid damage to enamel

(a) Attend to spilled foods immediately--wipe off with damp cloth. If surface is very hot when something is spilled, use a dry cloth, not a wet one (this will avoid burns and cracks to enamel finish)

(b) For thorough clean-up of exteriors:

i. Use cloth or sponge wrung out of detergent suds. Rinse and wipe dry.

ii. Do not use:
- abrasives -- not necessary to use on enamel.
- Strong acids or alkalies

(2) Spread newspapers on floor in front of stove to protect and keep floor warm.

(a) Broiler

i. Remove pan and rack immediately after using. Remove fat while warm.

ii. Before putting back, wash thoroughly with hot water and detergent and ammonia. Soaking may be necessary 15-20 minutes in hot sudsy water. Steel wool soap pads can be used.

iii. Wipe inside door of broiler compartment of grease (when cool) Wipe grease spatters off wall, if any. Try to prevent this.

iv. For stubborn spots, use steel wool and ammonia or mild scouring powder and rinse.

(b) Ovens

Clean regularly to prevent burned-on grease and food from coating the oven.

i. Routine cleaning

- Use the same material and methods described above for cleaning the broiler.

- If badly grease-spattered, use ammonia. (See below How to use)

ii. Special cleaning with ammonia:

- The night before thorough cleaning, place a small bowl containing about one-half cup of ammonia in the oven.

- Close the door tight. The fumes loosen grease and burned-on food. In the morning, wash off and rinse. Take out racks, clean bottom, sides and insides of the door with hot water and detergent or soap suds and ammonia. Use cloth dipped in ammonia to rub off stubborn stains on bottom of oven, leave this cloth on stains for several hours to loosen it. Wash off.

3. Kitchen Equipment and Areas (Continued)

b. Stove (Continued)

(c) Racks

i. Place in sink and wash with hot water. If they do not come clean, put them on a thick layer of newspapers, then scrub them with steel wool, scouring powder and ammonia.

(d) Glass window in oven:

i. Rub frequently with damp cloth dipped in baking soda. This prevents glass from gumming up and becoming difficult to clean.

(e) Drip pans:

i. Remove regularly and wash with other stove parts. Do not use aluminum foil under burners of electric ranges.

(f) Burners

i. Take out and scrub with a stiff brush in hot suds, or all purpose detergent and soap and ammonia.

ii. If any of the little openings in the turn-on end through which gas flows to burners are clogged, push out material with a wire or hairpin.

iii. If of cast iron, boiling for several minutes with water and a few tablespoonsful of washing soda will clean them easily.

Do not use an aluminum pan for this rinse well, shake out water and wipe outside dry. Replace them in right position. Light each burner to complete drying and be sure they work correctly.

iv. Gas burners work correctly and efficiently when flame is blue and even.

v. A yellow, ragged flame shows that there is not enough air with the gas.

vi. Clean with wire if not burning properly--burner may be clogged.

vii. If color of flame is not corrected, check the little air shutter at the turn-on end. It must be open far enough to allow the proper amount of air to come in.

(g) Pilot Light

i. If it goes out, holes may be clogged.

ii. Clean out with wire and re-light with match.

iii. For a stronger flame, turn screw at end of tube connecting it, to the left.

c. Sinks

(1) Clean after each use, use mild scouring powder, rinsing well.

(2) For greasy sink, use "dry cleaning" method to clean.

(3) Apply some soap or detergent to a dry cloth or sponge and scrub to dry sink. Turn on hot water to rinse well.

(4) To remove stains

(a) Fill sink with warm water, use stopper, and allow about 1/4 cup of liquid household laundry bleach to stand in sink until stains disappear, swishing with cloth.

(5) To drain sink

(a) Flush with lots of water, using a little washing suds occasionally to cut grease.

(6) Faucets

(a) Use warm soapy water, wipe dry. Metal polish is not necessary.

d. Garbage Pail

(1) Garbage should be drained well and wrapped in newspapers.

(a) Use newspaper or paper bag to line garbage pails. Place in incinerator.

(2) Keep clean, washing often, inside and out with hot water and soap or detergent. Rinse well and dry.

(3) Disinfect with liquid household laundry bleach frequently in hot weather.

(4) Air out after washing.

e. Work surfaces

(1) Clean after each use. Wipe with damp cloth or sponge wrung out of sudsy water.

(2) Use only mild scouring powders on porcelain surfaces.

f. Cabinets

(1) Wipe off cabinets if any fingermarks on them.

(2) Metal Cabinets:

(a) Wash with warm water and mild detergent. Dry quickly, preventing rusting.

(3) Wood Cabinets

(a) Do not use too much water or allow water to stand on surfaces.

(b) Use hot soapy water, rinsing well.

(c) Do not use gritty powders.

itchen Equipment and Areas (Continued)

. General

Remember - In cleaning any surface in the kitchen in which food or food utensils will come in contact, rinsing - after washing - with water to which has been added 2 tablespoonfuls of liquid laundry bleach per gallon will help insure safety of food and maintenance of a safe, sanitary and clean smelling kitchen.

edroom and Bathroom

. Bedroom

(1) Bed, Mattress and Pillows:

(a) Dust bedstead when cleaning bedroom, getting into all corners.

(b) Dust mattress periodically with a stiff brush or attachment of vacuum cleaner. Dust sides, edges, and springs.

(c) Freshen with sun and air

(d) Turn mattress weekly, first, over; next time, reverse top and bottom, open windows wide and air.

(2) To clean mattress

(a) Clean with good upholstery shampoo, or with dry suds from solution of detergent and lukewarm water. Don't get mattress too wet.

(b) Rinse with sponge squeezed out of clear water. Let one side dry thoroughly before cleaning other side.

(c) Quilted pads protect mattress and add to comfort.

(3) Pillows

(a) Fluff thoroughly every day and air

(b) Mattress and pillow covers help keep the ticking sanitary and clean.

(4) Springs - Coil

(a) To dust, use old dish mop dampened, or a damp cloth.

(5) Closets

(a) Do a thorough cleaning twice a year.

(b) Remove contents (clothes, etc.) and air out. Dust walls, wash off shelves, spray with moth-proofing material.

(c) Replace shelf paper.

4. Bedroom and Bathroom (Continued)

b. Bathroom

(1) Clean bathtub and basin after using--keep brush, cleaner, sponge, or cleaning cloth handy for use, do not use coarse cleansers--they scratch surfaces.

(2) Fixtures: Nickel or Chromium

(a) Wash with hot water and detergent or soap. If cleaned often, they will not turn dark.

(b) Polish by rubbing. It is not necessary to use metal polishes.

(3) Toilet Bowls

(a) Clean and sanitize as needed, at least once a week.

(b) Sanitize by using liquid household laundry bleach. After adding, about 1/4 cup, let remain for awhile. Swish around with brush or cloth.

(4) Wash Bowls

(a) Clean after each use.

(b) To remove stains, use liquid household laundry bleach. (See "Sinks" Kitchen)

(5) Medicine Cabinets

(a) Clean inside and out occasionally, removing bottles, etc.

5. Floors, Walls and Windows

a. Floors

(1) Asphalt Tile

(a) To dust

Use a dry, untreated dust mop or a damp mop

(b) To wash use suds made with a detergent and cool water--not too much water.

(c) To wax

Waxing protects, prevents scratching and makes floor easy to clean. After floor is washed, dry thoroughly.

(d) Tile is damaged by grease and soil. Wash up spots immediately. Ordinary waxes containing strong soaps and scouring powder damage asphalt tile. Waxes containing kerosene, gasoline, naptha benzine, turpentine or oil damage the tile.

5. Floors, Walls and Windows

a. Floors (Continued)

(2) Cement

(a) Dusting or sweeping

Sweep with a vacuum cleaner, broom, a push brush or dry mop. Use a sweeping compound to keep down dust.

(b) Washing

Use wet mop or long-handled scrubbing brush and plain water. If floor is very dirty, add two to four tablespoons of washing soda (Sal soda) to the washing water. Rinse floor thoroughly with clear water and let it dry. If grease stains remain, sprinkle them with washing soda and let stand for about half an hour, then rinse. Do not use oil or cleaner on floor.

(c) Waxing

After floor is dried, wax. Read labels to determine proper kind to use.

(3) Hardwood floors

(a) Floor should not be scrubbed or mopped with too much water. Use a damp mop to remove spots and do not use a strong detergent.

(b) Protect the finish on hardwood floors by the use of a mat outside the door and one at all entrances. Use small rugs (non-skid) on areas where there is more traffic.

b. Walls, Ceiling and Doors

(1) To Dust:

(a) Use soft wall brush and vacuum clean to clean the floor and walls.

(b) Take down the pictures, move furniture from the walls.

(c) Dust walls and ceilings carefully from the baseboard up.

(d) Dust corners, moldings

(e) Do not use cloths--they are unsatisfactory.

(2) Painted Surfaces

(a) Clean with wallpaper cleaner

(b) Wash with mild soap or detergent and cloth. Rinse well and dry with soft cloth

(c) Do not use gritty cleansers or those containing lye.

5. Floors, Walls and Windows (Continued)

b. Walls, Ceiling and Doors (Continued)

(3) Enamel

(a) Wrong cleaner will cause loss of finish and soil resistance.

(b) Use soda for best results. Two tablespoons in pail of hot water.

(c) Change water often, no need to rinse.

(d) Squeeze sponge, wash small area in circular motion; overlap edges of the part cleaned.

(e) Wash bottom of wall first, then work up.

(4) Tile

(a) Use water softener - 1 teaspoon or more in a pail of water.

i. Sprinkle a little on damp cloth, and rub tiles clean if very necessary and soiled.

ii. Use toothbrush to remove dirt between tiles

(5) Concrete

(a) Scrub with detergent and brush. Rinse well.

c. Windows, Sill and Frames

(1) Windows

(a) Keep windows open a little at all times to prevent steaming. In cold weather wipe water running down, caused by steam. This will prevent rusting. Wipe steam from windows with a crumbled newspaper or paper towel. This also removes soot from windows.

(b) Wash regularly and often before too much grime has settled. Use stool to reach all parts. Use water, with nothing added. This is best. Use:

Vinegar or ammonia - 1 teaspoon to a quart of cool water.
Borax - 1 - 2 teaspoons
Alcohol - 1/4 cup to pint of water in winter. This prevents freezing.
Alcohol--Soda and ammonia damage paint surfaces and varnishes.

5. Floors, Walls and Windows (Continued)

c. Windows, Sill and Frames (Continued)

(1) Windows (Continued)

(c) To Wash:

i. Squeeze sponge or cloth as dry as possible.

ii. Wash top, bottom, then middle of panes

iii. Polish at once with clean dry cloth, chamois or crumpled towel.

iv. Use of squeegee:

After washing apply firmly downward. Wipe moisture from edges of rubber blade after each use.

(2) Frames

(a) Clean before washing windows.

(b) Dust first, then wash.

(3) Sills

(a) After washing and drying, wax with liquid or paste wax.

(b) Apply with a soft clean cloth. Let dry and polish.

(4) Screens

(a) Clean regularly, windows will stay clean longer.

(b) Use stiff hand brush or brush attachment on vacuum cleaner to clean.

(c) Dust periodically with brush or with vacuum cleaner.

(5) Shades

(a) Lift the slotted end of roller, take shade down and unroll it on flat surface.

(b) Scrub with a small bursh, a small surface at a time using a stiff brush, lather of soap or detergent until one side is finished.

5. Floors, Walls and Windows (Continued)

c. Windows, Sills and Frames (Continued)

(5) Shades (Continued)

(c) Rinse lather off with cloth squeezed nearly dry, out of clear water.

(d) Take care not to get shade too wet.

(e) Turn it over and do the other side.

(f) If bottom of shade is dingy, the shade can be taken off the roller and top and bottom reversed.

(g) If shade is loose on roller after completely dried and replaced, lift the slotted end and roll it up by hand. This is easier than trying to rewind the spring.

6. Furniture, Carpets and Draperies

a. Furniture

(1) Fabrics

(a) Dust regularly with stiff brush or attachment.

(b) Remove cushions and dust first. Get into all crevices, probe carefully for lost items.

(c) Place near open window to air.

(d) Clean before it really gets dirty; dark patches (hair oils, perspiration, etc.) cleaned early will be easier to remove.

(e) Use water on material that is not damaged by water. (Use dry cleaning fluid if water cannot be used)

(f) Use upholstery shampoo or a stiff soap lather. A home-made shampoo can be made the following way.

6 teaspoons of white soap flakes
1 pint boiling water
2 teaspoons ammonia or borax

Cool until jelled; then beat to lather with egg beater. Use lather only, not the water, to prevent stuffing from getting too wet. Use small stiff brush to small areas (size of the hand) When clean, rinse with sponge squeezed out of clear warm water. Continue other areas. Do not use or replace pillows until completely dry. Do not put in sun to dry.

6. Furniture, Carpets and Draperies (Continued)

a. Furniture (Continued)

(2) Plastic Upholstery

(a) Sponge with warm suds

(b) Lather thoroughly with sponge and rinse quickly. Don't let water seep through.

(c) If plastic seats of kitchen chairs are stretched, dip sponge in hot water; place on top of stretched part of seat and shape will be restored.

(3) Plastic Surfaces

(a) Wipe with damp cloth or with cloth wrung out of lukewarm suds of detergent or mild soap.

(b) Table tops may be waxed to hide glass marks and small scratches.

(4) Chromium-plated chairs and tables

(a) Wash occasionally and dry, rubbing with soft cloth.

b. Curtains and Draperies

(1) Lined and non-washable draperies should be sent to dry cleaner. Others washed at home.

(2) If any doubts about the color of draperies, test a piece of the material or a small part of a corner by squeezing it in a basin of warm water - if becomes discolored, the dyes are not fast. If only a little color comes out you can still wash the draperies with care.

(3) Wash each piece separately in lukewarm suds of pure white soap flakes or mild detergent. Rinse carefully. Spread on turkish towel, roll up immediately and let hang unrolled piece to dry indoors in airy place. Hang straight--do not let part touch each other.

(4) It is a good practice to not permit small children to eat in the living room or any areas where furniture and draperies or carpets may be soiled by food being spilled. This will minimize cleaning jobs too.

c. Rugs and Carpets

(1) Daily Cleaning:

(a) Same for all types--no matter what material they are made of. Use carpet sweeper to remove dust, dirt, ashes and crumbs.

(2) Weekly Cleaning

(a) At least vacuum thoroughly. This will pick up what carpet sweeper has missed, and fluff up the pile. A thorough cleaning with a vacuum cleaner means at least seven strokes over each foot of the surface.

(3) Monthly Cleaning:

(a) Shampoo carpet every three months -- they last longer.

6. Furniture Carpets and Draperies (Continued)

c. Rugs and Carpets (Continued)

(3) Monthly Cleaning (Continued)

(b) Remove grime that discolors and particles embedded and not reached by vacuum cleaner.

(c) Use long-handled built in dispensers for liquid shampoo.

(d) To apply, criss-cross your strokes, using a light foam to avoid soaking the carpet through to the mat. Read directions as to how to operate the applicator and other points. Slip waxed paper discs under the legs of chairs and tables; leave on while damp. If rug or carpet must be walked on before completely dried, spread uncolored wrapping paper on the floor.

(4) General Care:

(a) Small rugs should not be shaken out of windows or doors to rid them of dust.

(b) Vacuum clean instead

(c) Turn rugs around to distribute the wear, once or twice yearly.

(d) Lift heavy furniture in moving them, do not shove.

(e) Rubber or plastic slides under castors prevent damaging the rug.

(f) Spots and stains on rugs should be removed when they are washed and fresh.

(g) Sponge with plain cool or lukewarm water using clean water and colorfast cloth without starch.

(h) Blot up spilled fluids at once with paper kitchen towel.

(5) Small Cotton Rugs:

(a) Can be washed in a tub or automatic washer in warm water and a mild soap with a softener or detergent. Rinse rugs thoroughly in lots of water, and allow to drip dry in the shade. Do not wring, rub or twist. Round rugs, oval rugs should be dried flat to keep their shape on the lawn or on newspapers.

(b) Latex-backed cotton rugs can be washed at home.

SECTION C – REFERENCE BOOKS, PAMPHLETS AND FILMS

The following materials were available and utilized in conjunction with lectures under the heading "Home Management".

1. Books

a. Nutrition in Health and Disease, Cooper-Baker, et.al.

2. Pamphlets

a. "Breast Feeding your Baby", DHEW, PHS, DIH, AAO

b. "Food For The Mother To Be", DHEW, PHS, DIH

c. "Food For The Nursing Mother", DHEW, PHS, DIH

d. "Food to Build a Strong, Happy Child", DHEW, PHS, DIH

e. "The Healthy Way to Weigh Less," Council on Foods and Nutrition, AMA, 535 No. Dearborn St., Chicago, Illinois.

f. "Food For The Family", Metropolitan Life Insurance Co.

g. "Food for a Strong Healthy Family", DHEW, PHS, DIH, AAO

h. "Food for Fitness", Consumer and Food Economics Research Division, Agriculture Research Service, Washington, D.C.

i. "Drink Safe Water", USDA, FES, AID, Sanitation Series No. 1, Washington, D.C.

j. "Personal Cleanliness", FES, USDA, AID, Sanitation Series No. 3, Washington, D.C.

k. "Wash Dishes Right", USDA, FES, AID, Sanitation Series No. 4, Washington, D.C.

l. "Storing Food at Home", USDA, FES, AID, Sanitation Series No. 7, Washington, D.C.

m. "Basic Nutrition Concepts - Their Use In Program Planning and Evaluation", USDA, CFERD, Nutrition Program News, Nov-Dec., 1964, Washington, D.C.

n. "Basic Recipes", Cooperative Extension Service. South Dakota State University (Brookings) 5M-reprint 3-64 - File:10.1.1-1063

o. "Clean Bright Laundry", Cooperative Extension Service, South Dakota State University, Brookings, 10M-561 File: 8.55 (Reprint 8-61 - 9244)

p. "Why Minerals Mean Much To Us" Cooperative Extension Service, South Dakota State University, Brookings, 3M - 8-64, File: 104.4-1514.

q. "Why Vitamins are Vital to Life", Cooperative Extension Service, South Dakota State University, Brookings, 3M - 8-64 - File: 10.4.5 - 1513.

r. "Why We Need Fats and Carbohydrates", Cooperative Extension Service, South Dakota State University, Brookings, 3M - 8-64 - File: 10.4-1512.

s. "How to Plan a Good Meal", Cooperative Extension Service, South Dakota State University, Brookings, 3M - 8-64 - File 10.3.1-1515.

t. "Enjoy Life With Good Nutrition", Cooperative Extension Service, South Dakota State University, Brookings, 3M - 8-64 - File: 10.4-1510.

u. "What is the Place of Protein in Your Diet", Cooperative Extension Service, South Dakota State University, Brookings, 3M - 8-64 - File: 10.4-1511.

3. Films

a. "Sharing Work at Home", South Dakota State University, Brookings.

b. "Your Work and Money", Household Finance Corporation

PART VI – HOME MANAGEMENT

Quiz # 1

Name: ______________________________

1. How much milk does an 18 month old child need? Why?

2. Why do doctors fear "too much milk?" How much is too much?

3. What could cause nutritional anemia?

4. How are "the runs" related to baby's food?

5. Suppose a mother tells you her one year old child does not like vegetables? What can you say?

6. How about a six month old child and non-fat dry milk?

7. A child's hemoglobin is 5 mg. What advice can you give the parents?

8. It is November and a mother tells you she cannot afford oranges for a one year old child. What can you say?

9. A mother is expecting a baby within four months. Mention three things you might discuss with her.

10. Make the feeding schedules suggested in ______________________________

11. Make the "Meal Plans" suggested in
    ____
    ____
    ____

12. A mother tells you she prefers to nurse her babies but is afraid she won't have milk enough. What can you say?

Quiz # 1 (Continued)

13. A mother asks when she can begin to give her 3 months old baby rolled wheat? Your answer

14. A mother asks you if home canned green beans are safe for children. Your answer

15. Parents say river water has never given them the "runs". You are concerned about their child. What do you say?

16. Make a list of ten questions you think parents might ask about feeding children.

PART VI – HOME MANAGEMENT

Quiz # 2

Name: ____________________

1. Split pea soup makes a good substitute for ____________, if we put ________ or ________ or both in it.

2. The commodity cereals good for babies are ________ and ________.

3. One way to improve a breakfast of boiled cornmeal is to add ____________ to the cornmeal.

4. Three recipes in which nonfat dry milk can be used are ________________, ____________ and ____________.

5. Best food we have for iron is __________. It will help to prevent anemia.

6. We need vitamin C each day. Check four of the following which are good vitamin C sources:

   Orange juice__, tomato juice__, cornmeal__, fresh buffalo berries__, bacon__, roseberries__, enriched rice__, raw cabbage__, freshly dug potatoes__, grapefruit__.

7. Whole milk is best for baby formulas. T F

8. Milk is baby food. Adults do not need it. T F

9. Enriched rice should be washed before cooking. T F

10. A baby needs to learn to eat a variety of solid foods before it is a year old. T F

11. List six commodity foods given out on the Pine Ridge reservation:

    a.
    b.
    c.
    d.
    e.
    f.

12. Why are dried eggs not distributed to the people on Pine Ridge reservation?

13. Breast milk is best for babies. T F

Quiz # 2 (Continued)

14. Check the breakfast plan which you would consider better for a school child:

    1. Potato chips, pop, bread and jelly. ____________
    2. Pancakes with syrup and milk to drink ____________

    Why?

15. Why should we help the Pine Ridge people with food and nutrition?

    a.
    b.
    c.

16. Is it better to use bleach (Clorox, Hylex, Purex, etc.) or pine oil when cleaning a house? ____________________

    Why?

17. A big problem in many homes appears to be dirty (used) dishes lying around with bits of food on them. How can we solve this problem?

18. Where do bedbugs live?

    b. What would you suggest and show a householder in order to help rid the place of these insects? (remember, spraying and dusting with insecticide is last)

19. How could you help a family who has a very insanitary privy to make and keep this privy sanitary?

20. You visit a 2-room home in your district at 2 PM and upon entering you notice the following:

    a. Used dishes on the kitchen table. The bits of food on the dishes are hard and dry.

    b. Partially eaten slices of bread on the table and floor near the table.

    c. A bucket in a corner containing water, bits of food, small pieces of paper, etc. and a very dirty dishrag hanging on the rim.

    d. Many flies

Quiz # 2 (Continued)

e. A baby bottle containing about 1/2 inch of milk setting on a bed.

f. Bits of paper, rags, etc, lying over the floor.

g. No sink - however, two buckets of clear water setting on a bench in a corner of the room. A dipper handle is sticking out of one of the buckets.

h. The chairs and dresser with spots of dried food on them.

i. A woman about 25 years old is holding an infant in her arms.

You introduce yourself and the woman asks what you want. The woman then apologizes for her house not being in order and says she was just beginning to clean house when you came. It appears to you that the house hasn't been cleaned for a long, long time.

Start from the time you enter the door, spend 2 hours with this woman teaching "home management, etc.", and write all the things you would say and do in order to help this person keep a cleaner and better house. --- YOUR ANSWER SHOULD FILL AT LEAST ONE WHOLE PAGE. GIVE YOUR REPLY STEP BY STEP --- (a sheet of paper is attached for this answer)

21. You show a woman how to clean a toilet bowl with a long handle brush and then hang the brush on a nail near the toilet. The woman tells you not to do that because the brush has germs on it (since it was in the toilet). Did you do the right thing? What would you tell the woman?

22. Why are household budgets necessary?

PART VII

COMMUNITY RESOURCES

PART VII - COMMUNITY RESOURCES

SECTION A – IDENTIFICATION AND USE OF COMMUNITY RESOURCES

The purpose of this lecture is to:

- acquaint the CHA with available local, State and Federal Social and Health resources.
- inform the CHA of their role, centered around making referrals to the appropriate resources.

1. Probable Problem Area and Appropriate Resources

By now you are familiar with the resources for assistance in solving usual day to day problems which you may not personally be able to handle - the nurse or physician for medical problems, the sanitarian for environmental health problems, and so on - but there are certain not easily resolved problem areas and resources with which you must be familiar as follows:

a. Dependent and Neglected Children

(1) Careful study of contributing factors

(a) Could CHA instruction improve the situation

(b) Referral to PHN and Medical Social Worker if serious problem exists.

(2) Gross physical abuse - requiring immediate action - refer to Welfare or Medical Social Worker.

b. Adoptions

(1) Persons wanting to adopt children refer to Welfare or Medical Social Worker.

(2) Persons wanting to give up children refer to Welfare or Medical Social Worker.

(3) Adoptions only to be done through licensed Child Placing Agency.

(a) Do not become involved in private or illegal plans for adoption.

c. Crippled Children

(1) Refer to Hospital for examination and determination of treatment.

(2) Hospital will refer to State Crippled Children's Service indicated.

1. Probable Problem Areas and Appropriate Resources (Continued)

d. Prosthectic Appliances - braces, etc.

(1) Refer to Medical Social Worker

e. Blind and Deaf Children

(1) Refer to Hospital for examination and treatment.

(2) Education for Blind and Deaf:

(a) School for Blind.

(b) School for Deaf.

(c) Refer to Branch of Welfare for application to above.

f. Physically Handicapped Adults

(1) Medical care, refer to PHS Hospital

(2) Vocational Training desired, refer to Medical Social Worker.

(3) Blind Person desiring vocational training refer to Medical Social Worker.

(a) State Department of Public Welfare
i. Old Age Assistance
ii. Aid to Dependent Children
iii. Aid to Totally and Permanently Disabled.
iv. Aid to the blind.

(b) Loans

(c) Scholarship and Financial Assistance for College or training

2. Referral Procedures

a. Careful Study of Situation before Referral

(1) Be clear regarding purpose of referral

(2) Question and consult with supervisor

b. Careful Discussion of Reason, Purpose and Referral Resource with Person or Family involved if Appropriate.

(1) Obtain appointment if appropriate

2. Referral Procedures (Continued)

c. Contact Agency or Resource and Inform as to Who and Why Referral

(1) Obtain appointment if appropriate

d. Follow up with Persons Referred and with Resources Referred to as indicated

(1) Persons may need additional help in accepting resources services.

SECTION B – REFERENCE PAMPHLET

The following material was available and distributed in conjunction with the lecture under the heading "Community Resources".

1. Pamphlet

a. "Selected Social and Health Problems and Resources in the Aberdeen Area", Aberdeen Area Medical Social Worker Consultant, Division of Indian Health Area Office, Aberdeen, South Dakota.

PART VIII

ACCIDENT PREVENTION

PART VIII - ACCIDENT PREVENTION

SECTION A – ACCIDENT PREVENTION

The purpose of this lecture is to acquaint the student with the cause and effect relationships in accidents.

1. Size of the Problem

A. Examples:

1. Approximately one-half of Indian accidental deaths are due to motor vehicle accidents.

2. The Indian death rate from accidents is three times the All Races rate.

3. Leading causes of death from non-motor vehicle accidents are falls, explosions, fires, drownings, etc.

4. Non-motor vehicle accidental deaths among children account for 21.6% of total accidental deaths.

5. 1964 Division of Indian Health Hospital data:

   a. External cause of injury for hospitalized patients indicates that motor vehicle accident injuries led all other causes of admission.

   b. In second place were falls, including recreational or athletic injuries.

   c. Cuts, burns and explosions were in third place.

   d. Assaults were fourth.

   e. Poisonings were in fifth place.

6. Injuries requiring treatment in Hospitals:

   a. Accounted for one of every nine Division of Indian Health and Contract Hospital Admissions.

   b. Hospital stay averaged 7.9 days for a total of 16,477 days.

7. Etc.

II. Information Basic to Accident Prevention

A. Where

B. When

C. To Whom

D. Type Accident

E. Type Injury

III. Human Factors in Accident Prevention

A. Sensory

B. Motor

C. Emotional

D. Congenital

E. Physical

F. Stress

IV. Environmental Factors in Accident Prevention

A review of and elaboration upon the Epidemiology of Accidents as contained in Part III, Section C, page 82.

A. Toxic Materials

1. Gases

2. Solids

3. Liquids

B. Environmental Limitations

V. Accident Agents

A. Accident agents are objects involved in or closely associated with an accident.

B. There are two considerations of accident agents.

1. Injury Agents

2. Accident Agents

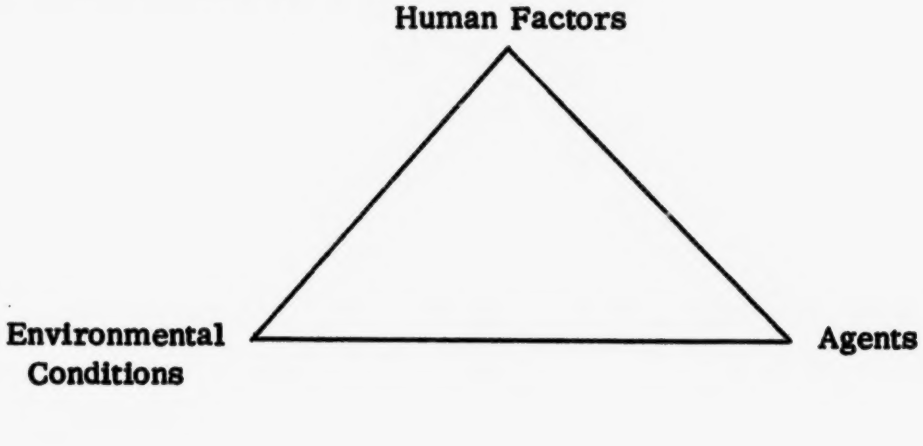
V. Accident Agents (Continued)

- C. Prevention via accident agents.
  - 1. Prevent accident by knowledge of the agent.
  - 2. Identify accident agents such as electrical shock, fire, toxic gases and materials, etc.
  - 3. Correlate human and environmental aspects of the accident agent.

VI. Accident Causation Agents

- A. The Accident Agent
- B. The Injury Agent
- C. Kinds of Agents
  - 1. Physical
    - a. Mechanical
    - b. Electrical
    - c. Glass
    - d. Fire
    - e. Etc.
- D. Chemical
  - a. Liquids
  - b. Solids
  - c. Gases

VII. Inter-relationships



SECTION B – TYPES OF ACCIDENTS

The purpose of this section is to indicate prevention potential in the four major accident categories. Local statistics and examples are to be used to amplify and specify the problems.

A. FRACTURES

1. Cause: Motor vehicle, falls, etc.
2. Treatment: General Statement
3. Prevention: Refer to above material by demonstration and/or example. Seat Belts

B. LACERATIONS

1. Cause: Knives, falls, glass, etc.
2. Treatment: General Statement
3. Prevention: Proper care and storage of knives, etc. based on above material.

C. POISONINGS

1. CAUSE:
    a. Foods and Drugs
    b. Petroleum Products, acids, solvents, etc.
    c. Vapors and Gases
2. TREATMENT:
    a. Induce vomiting, etc. (General)
    b. Do not induce vomiting (General)
    c. Air (ventilation; move person to open air)
3. PREVENTION:
    a. Storage (Place, type container, throwing out old drugs, labeling, etc.)
    b. Storage (place, type container, labeling, etc.)
    c. Ventilation, storage, safety valves, etc.

D. BURNS

1. Cause
    a. Fires and explosions
    b. Hot solvents, liquids and steam
    c. Acids and alkalis

D. BURNS (Continued)

2. Treatment - (General Statements)
3. Prevention:
   - a. Deny fuel to the fire.
   - b. Deny air to the fire.
   - c. Avoid heat necessary to kindle the fire.

SECTION B – REFERENCE PAMPHLETS AND FILMS

The following materials were available and utilized in conjunction with the lecture under the heading "Accident Prevention".

1. Pamphlets

a. "Get In the Vacation Safety Picutre", National Safety Council, 425 N. Michigan Ave., Chicago, Illinois

b. "Home Fire Safety Check List", The National Board of Fire Underwriters, Chicago, Illinois

c. "Obedience Means Safety for Your Child", American Academy of Pediatrics Inc., Evanston, Illinois

2. Films

a. "Home Safe Home", National Safety Council

b. "Broken Glass", University of California

c. "I'm No Fool With A Bicycle", #1328, Walt Disney

d. "Home Accidents - Community Health", DHEW, PHS, CDC

e. "No Defense", DHEW, PHS, CDC

f. "Safe Living at Home", #116, South Dakota State Highway Department.

g. "Children at Play with Poisons", DHEW, PHS, CDC

h. "Are You Safe at Home", South Dakota State Highway Dept.

i. "Live and Learn", South Dakota State Highway Department

j. "Accidents Don't Just Happen", DHEW, PHS, CDC

k. "When Sally Fell", Obtained from South Dakota State Health Department.

PART VIII - ACCIDENT PREVENTION

QUIZ

Name: ____________________________

1. Most fatal home accidents occur in:

   A. Kitchen

   B. Bedroom

   C. Bathroom

   D. Basement

2. About one-half of Indian accidental deaths are caused by:

   ____.

3. Indian death rate from accidents is lower than all other races in the U.S.A.?

   True ☐

   False ☐

4. Non-motor vehicle accidents among children account for 10%, 21.6%, 42.3%, 61.8%, of total accidental deaths.

5. Name the causative agents of accidents

6. Name the kinds of Agents.

7. What are the human factors in accident prevention?

8. Should vomiting be induced in all cases of poisoning?

QUIZ (Continued)

9. Explain briefly how you would treat a person for:

    1. Burns
    2. Cuts
    3. Gun shot wound
    4. Electrical shock
    5. Drowning
    6. Fracture

10. Have you conducted a home safety check?

    A. When?

    B. Did you find any defects?

    C. Did you correct them?

PART IX

EDUCATION TECHNIQUES

PART IX - EDUCATION TECHNIQUES

SECTION A – EDUCATION TECHNIQUES

The purpose of this lecture is to provide the student with an understanding of basic educational techniques and the necessity for clear communications in obtaining and maintaining an acceptable level of health in the individual and community.

1. Communication

a. At least two people - speaker and listener or writer and a reader.

b. All language, oral and written is symbolic.

  (1) No speaker or writer says or writes a meaning itself.

  (2) No listener hears or sees meaning itself.

  (3) Symbols are merely a vehicle used to present his meaning.

c. In communication by means of language, as well as other types of communication, it is meaning that is to be communicated.

d. People achieve various degrees of meaning in the reading and listening that they do and they achieve various degrees of exactness and clearness in presenting their meaning in language.

e. Any individual does his thinking with the meanings that he possesses in his mind.

f. Problems in Communications

  (1) Language

  (2) Experience

g. Failure to Communicate

  (1) Speaker does not understand topic

  (2) Listener does not understand concepts

  (3) Learning theory not understood

1. Communication (Continued)

h. Possible Causes of Deficiencies

(1) Deficiencies in reading and in listening

(a) Lack of the meanings or concepts which symbols represent.

(b) Lack of knowledge of the spoken symbols used to represent these concepts.

(c) Lack of ability to sense relationships between parts of a sentence, paragraphs, etc.

(2) Deficiencies in presenting meanings in language.

(a) Failure to clarify in the mind the meaning to be expressed.

(b) Failure to present enough detail to help listener or reader to make the meaning intended.

(c) Poor selection of words.

(d) Poor organization of meanings within a sentence, paragraph, etc.

2. Planning for Meeting

a. Determine purpose

b. Contact Resource People

c. Obtain meeting place

d. Notify public

(1) Tell what is going to happen

(2) Tell the exact hour, day and place

(3) Indicate clearly who is invited.

(4) Make attractive

(5) Select place where people will see it.

3. Preparation for Meeting

a. Be sure facilities are available and ready

b. Prepare material in advance of meeting

c. Have all equipment and material in place before meeting begins.

4. Visual Aids

- a. Films
- b. Pamphlets
- c. Chalkboard
- d. Flipchart
- e. Flannelboard
- f. Overhead projector
- g. Prepare handouts

5. MEETING

- a. Call the meeting to order
  - (1) Use local officials if possible
  - (2) Explain purpose of meeting
  - (3) Give opportunity for many questions
  - (4) Summarize meeting
  - (5) State clearly decisions reached.
  - (6) Explain follow-up action.

6. Explanations

- a. Tell what you are explaining
- b. Divide your explanations into steps
- c. Arrange the steps in order
- d. Make your explanation detailed enough to be understood easily.
- e. Use exact words
- f. Use diagram or picture that will make the explanation clearer

7. Descriptions

- a. Give a general impression; then add details in an orderly manner.
- b. Compare an object with other objects of its kind or with a familiar object of another kind.

7. Descriptions (Continued)

   c. Use exact words

   d. Tell your point of view

   e. Tell in right order

   f. Write a description for class evaluation

8. Reports or Lessons

   a. Choose subjects which you either know well or can obtain the necessary facts before the meeting.

   b. Get information on the subject wherever you can.

   c. Choose a subject which the listeners will be interested in.

   d. Limit your subject so that you can cover the subject well within the time allowed for your talk.

   e. Prepare an outline of your report.

9. Giving Report

   a. Be neat and clean

   b. Speak in clear voice and loud enough to be easily heard.

   c. When telling jokes, be careful not to offend anyone.

10. Charts and Illustrations

    a. Make large enough so all can see

    b. Make attractive and interesting

    c. Make them easy to read

    d. Use words with exact meaning to reader

    e. Have a purpose

11. Community Surveys

    a. Explain to people:

       (1) Why, when and how, what

    b. Have a purpose

    c. Be well organized.

SECTION B – REFERENCE BOOKS, PAMPHLETS AND FILMS

1. Articles

a. "Barriers and Gateways to Communication" Roethlisberger, F. J. and Carl R. Rogers, Harvard Business Review, July-Aug. 1952 Soldiers Field, Boston 63, Mass.

2. Books

a. Uris, Auren and Betty Shapin, Working With People, The Macmillan Company, New York

b. Smolensky, Jack and Franklin B. Haar, Principles of Community Health, W. B. Saunders Co., Philadelphia, Pa.

PART IX - EDUCATION TECHNIQUES

Quiz #1

Name:____________________________

1. What is Communication?

2. What are some of the barriers to effective communication?

3. How can communication be stimulated?

4. Communication can be improved most effectively by what means?

5. Why plan for a meeting?

6. Why call a meeting?

HANDOUT

COMMUNICATION

TEN COMMANDMENTS OF GOOD COMMUNICATION

1. Seek to clarify your ideas before communicating.
    a. Analyze problem and idea to be communicated.

2. Examine the true purpose of each communication.
    a. Ask yourself what you really want to accomplish with your message:
        (1) Obtain information
        (2) Initiate action
        (3) Change another person's attitude

3. Consider the total physical and human setting whenever you communicate.
    a. Meaning and intent are conveyed by more than words alone.

4. Consult with others, when appropriate, in planning communications.

5. Be mindful, while you communicate, of the overtones as well as the basic content of your message.
    (1) Your tone of voice
    (2) Your expression
    (3) Your response to others
    (4) Your choice of language

6. Take the opportunity, when it arises, to convey something of help or value to the receiver.
    a. Consider the other person's interest and needs.

7. Follow up your communication

8. Communicate for tomorrow as well as for today.

9. Be sure your actions support your communications
    a. Its not only what you say, but what you do.

10. Seek not only to be understood but to understand - be a good listener.

Books

References: American Management Association
135 West 50th Street
New York, New York

Barriers and Gateways to Communication
Roethlisberger, L. J. and Carl R. Rogers
Harvard Business Review, July - August 1952

Are You Listening?
Nichols, Ralph G. and Leonard A. Stevens
McGraw Hill Book Company
New York, New York 1957

PART X

HUMAN RELATIONS

PART X - HUMAN RELATIONS

SECTION A – HUMAN RELATIONS

The purpose of this lecture is to provide the student with an awareness of the importance of proper human relationships in achieving individual and community understanding and support for public health programs and to equip the student with the knowledge and techniques to be used in practicing acceptable human relations.

1. Attitude Development

- a. Reference to previous lecture regarding attitudes influencing change.
- b. Individual, family, and community attitudes toward CHA program and teaching and personnel.
- c. CHA attitude toward individuals, community CHA program.
- d. Importance of awareness and sensitivity to attitudes.

2. Attitudes as related to interviews

- a. Importance of sincerity
- b. Individualization
- c. Flexibility
- d. Empathy
- e. Projection
- f. Objectivity
- g. Sensitivity to feelings
- h. Confidentiality
- i. Self Confidence

3. Principle of Interviewing

- a. Verbal and non-verbal communications
- b. Understanding of interviewers culture values, beliefs, individual background.

3. Principle of Interviewing (Continued)

c. Interviewing components

  (1) Purpose - should be clear to interviewers and interviewee

  (2) Skill in observation

  (3) Skill in establishing rapport

  (4) Non-judgemental attitude

  (5) Skill in meeting resistance

  (6) Use of authority

  (7) Skill in use of questions

4. General Rules

a. Don't talk "down" to people

b. Use of simple words - illustrations

c. Understanding questions before answering

d. Avoidance of personal references

e. Careful use of example of others in community

  (1) Violation of confidence

f. Avoid advice in matters not equipped or trained to handle.

5. Critical or Unfair Treatment

a. Examples:

  (1) Receiving blame for something not responsible for.
  (2) Ridicule, hostility, envy
  (3) Unresponsiveness
  (4) Unrealistic demands or requests
  (5) Attempt to manipulate

b. Handling Unfair Treatment, Controlling Emotions, Avoiding Unresolvable Conflicts

  (1) Importance of self-understanding and awareness

  (2) Concentration on purpose

5. Critical or Unfair Treatment (Continued)

(3) Concentration on what person is trying to say rather than angry response to words or actions (never argue)

(4) Demonstrative of acceptance and readiness to understand

(5) Resistance usually based on feelings not logic.

(6) Be warm and genuine - no fake sympathy

(7) Some cannot be reached

(a) Make sincere attempt - then avoid if unresolvable

(b) Avoid problems not equipped to handle

(c) Use of knowledge of resources and good referrals.

6. Familly Responsibilities

a. Promotion of family unity and responsibility to help themselves

b. Encouragement of self help rather than dependency

c. Include All family members when appropriate

d. Implication of understanding family interrelationships.

SECTION B – REFERENCE BOOKS, PAMPHLETS AND FILMS

1. Books

a. Garrett, Annette, Interviewing, Its Principles and Methods, Family Service Association of America, 44 East 23rd Street, New York 10, N.Y., 1942.

b. Hunter, Floyd, Ruth C. Schaffer and Cecil G. Sheps, Community Organization: Action and Inaction, University of North Carolina Press, Chapel Hill, N.C., 1956.

c. Foster, George M., Traditional Cultures: and The Impact of Technological Change, Harper & Row Publishers, Incorporated, 49 East 33rd Street, New York 16, N.Y.

PART X - HUMAN RELATIONS

Quiz #1

Name: ______________________

1. What adverse effect can your attitude have on other people?

2. How important is sincerity?

3. Is self-confidence an important asset in dealing with others?

4. Name four principles of interviewing.

5. What are the general rules of interviewing?

6. Should you always be warm and genuine to get your point across?

7. Should you become involved with problems you cannot handle? Why?

PART XI

SUGGESTED CURRICULUM GUIDE

SUGGESTED CURRICULUM GUIDE
FIRST WEEK

Monday

08:30 - 09:30	Roll, Distribution of Materials, Welcome and Introductions, Class Schedule, time	Tribe, Director
09:45 - 12:00	What is the Community Health Aide Program	Tribe, Director

ADMINISTRATIVE RELATIONSHIPS OF COOPERATING AGENCIES

01:00 - 01:50	Tribal Role in a Program	Tribe
02:00 - 02:30	Office of Economic Opportunity	OEO Rep.
02:45 - 03:45	U.S. Public Health Service	PHS Rep.
03:45 - 04:15	Bureau of Indian Affairs	BIA Rep.
04:15 - 04:45	Agriculture Extension Service	AGRI Rep.
04:45 - 05:00	Discussion and Questions	Director

Tuesday

08:30 - 10:00	Course Content	Director
10:15 - 11:00	Team Assignments	Director
11:10 - 12:00	Discussion	Director
01:00 - 02:30	History of Public Health	PHS Rep.
02:45 - 04:15	Public Health Organization 1. Local, State, and Federal Programs 2. Status of Indian Health with emphasis on Pine Ridge Sioux Reservation	PHS Rep.
04:30 - 05:00	Discussion	Director

ROLE OF CHA IN THE COMPREHENSIVE HEALTH PROGRAM

Wednesday

08:30 - 09:30	Ethics and Conduct	PHS Rep.
09:45 - 10:45	Importance of Preventive Health Service.	Director or Physician
11:00 - 11:45	Bringing about change where beneficial.	Social Worker or Anthropologist
11:45 - 12:00	Questions and Discussion	Director
01:00 - 03:00	Tour of PHS Facilities, Pine Ridge	Director
03:30 - 05:00	Review of Presentations and Activities.	Director

Thursday

08:30 - 09:30	Introduction to Anatomy and Physiology	Physician, Scientist
09:45 - 12:00	The Skeletal System	Physician, Scientist, Nurse
01:00 - 02:00	Review	Director
02:15 - 04:30	The Muscular System	Physician, Scientist, Nurse
04:30 - 05:00	Review	Director

Friday

08:30 - 09:00	Quiz #1	Director
09:00 - 09:30	Review	Director
09:45 - 12:00	The Digestive System	Physician, Scientist, Nurse
01:00 - 02:00	Review	Director
02:15 - 04:30	The Circulatory System	Physician, Scientist, Nurse
04:30 - 05:00	Review	Director

SECOND WEEK

Monday

08:30 - 09:00	Quiz #2	Director
09:00 - 09:30	Review	Director
09:45 - 12:00	The Respiratory System	Physician, Scientist, Nurse
01:00 - 02:00	Review	Director
02:15 - 04:30	The Urinary System	Physician, Scientist, Nurse
04:30 - 05:00	Review	Director

Tuesday

08:30 - 09:00	Quiz #3	Director
09:00 - 09:30	Review	Director
09:45 - 12:00	The Nervous System	Physician, Scientist, Nurse
01:00 - 02:00	Review	Director
02:15 - 04:30	The Endocrine System	Physician, Scientist, Nurse
04:30 - 05:00	Review	Director

Wednesday

08:30 - 09:00	Quiz #4	Director
09:00 - 09:30	Review	Director
09:45 - 12:00	The Reproductive System	Physician, Scientist, Nurse
	Film: "From Generation to Generation"	
01:00 - 02:00	Review	Director
02:15 - 04:30	The Senses (Sight, Smell, Taste, Touch, Hear)	Physician, Scientist, Nurse
04:30 - 05:00	Review	Director

Thursday

08:30 - 09:00	Quiz #5.	Director
09:00 - 12:00	Review Systems of the Body	Director
01:00 - 05:00	Review Systems of the Body continued	Director

Friday

08:30 - 12:00	Examination	Director
01:00 - 04:00	Introduction to Parasitology	Physician, SAN.
04:00 - 05:00	Lab Experiments	SAN

THIRD WEEK

Monday

08:30 - 09:30	Review	Director
09:45 - 12:00	Demonstration on Microbiology.	Physician, SAN.
01:00 - 02:00	Review	Director
02:15 - 05:00	Lab Experiments continued	SAN.

Tuesday

08:30 - 09:00	Quiz #6.	Director
09:15 - 10:15	Elementary Epidemiology - General (Cause, Transmission, Treatment, Prevention).	San., Physician
10:30 - 12:00	Epidemiology of Accidents	San.
01:00 - 02:00	Review	Director
02:15 - 04:15	Epidemiology of Skin Infections and Ectoparasites	Physician, San., PHN
04:15 - 05:00	Review.	Director

Wednesday

08:30 - 09:00	Quiz #7	Director
09:30 - 10:00	Review	Director
10:15 - 12:00	Epidemiology of Enteric Infections	Physician, San., PHN
01:00 - 02:00	Review	Director
02:15 - 04:15	Epidemiology of T.B. and other Respiratory Diseases	Physician, San., PHN
04:15 - 05:00	Review	Director

Thursday

08:30 - 09:00	Quiz #8	Director
09:30 - 10:00	Review	Director
10:15 - 12:00	Epidemiology of Dental Diseases	DDS
01:00 - 01:30	Review	Director
01:45 - 04:00	Epidemiology of Venereal Disease	V.D. Investigator, Physician
04:00 - 05:00	Review	Director

Friday

08:30 - 12:00	Examination	Director
01:00 - 05:00	General Review	Director
	Evening Study Textbook - pages 41-53, 182-194	

FOURTH WEEK

Monday

08:30 - 12:00	Importance of Proper Handwashing, Recognition of Signs and Symptoms of Illness (Early Treatment)	ARC Instr., Physician, PHN
01:00 - 05:00	Above continued, Temperature taking, pulse, respiration	LPN, ARC Instr., Physician, PHN
	Demonstrations and classroom practice	
	Films: "One Minute Past Three" "Prairie Schooner, Space Age Model"	

Tuesday

08:30 - 09:00	Quiz #9	Director
09:15 - 10:00	Study Textbook pages 2-3, 6-9, 225-238	Director
10:00 - 12:00	Importance of following instructions of Physician and Nurse	Physician, Nurse, LPN
01:00 - 02:00	Record Keeping	Health Records Librarian
02:00 - 05:00	How to make a bed	Nurse, LPN
	Demonstrations and classroom practice	
	Film: "Image in the Mirror"	

Wednesday

08:30 - 09:00	Quiz #10	Director
09:15 - 10:00	Study Textbook pages 200 - 211	Director
10:00 - 12:00	Care of the Sick in the Home	ARC Instr., Nurse
01:00 - 05:00	Above continued, Body positioning in Bed, Getting a Patient in and out of Bed	ARC Instr., LPN, Nurse
	Demonstrations and Classroom Practice	
	Film: "The Road Back"	

Thursday

08:30 - 09:30	Review and Study Textbook pages 211-224	Director
09:30 - 12:00	The Bed Bath, Care of the Back, Skin, Mouth, and Hair	ARC Instr., LPN, Nurse
01:00 - 05:00	Above continued	ARC Instr., LPN, Nurse
	Demonstrations and Classroom Practice	
	Film: "Water"	

Friday

08:30 - 09:30	Review and Study Textbook pages 21-41, 233-255	Director
09:45 - 12:00	Dental Health	DDS, DH
01:00 - 03:00	Feeding the Sick	Nurse, Nutr., Diet.
03:30 - 05:00	Review	Director
	Demonstrations and Classroom Practices	
	Film: "The Wonderful World of Food"	

FIFTH WEEK

Monday

08:30 - 09:00	Quiz #11	Director
09:15 - 10:00	Study Textbook pages 146, 282-290, 291-297.	Director
10:00 - 12:00	Medicines and Their Use (including storage of medicines)	Pharmacist, Physician, Nurse
	Film: "Passport to Tomorrow"	
01:00 - 05:00	Basic Treatments in the Home	ARC Instr., Physician, Nurse
	Demonstrations and Classroom Practice	
	Film: "Danger, Handle with Care"	

Tuesday

08:30 - 09:30	Review and Study Textbook pages 145-164	Director
09:45 - 12:00	Elementary First Aid	ARC Instr., Nurse, HE
01:00 - 05:00	Above continued	
	Film: "Target: Babies and Children"	
	Demonstrations and Classroom Practice	

Wednesday

08:30 - 12:00	Examination	Director
01:00 - 05:00	Discussion and Preparation for "Mother and Child Care" section	Director
	Study HOME NURSING Textbook pages 76-90, 102-106	
	Study PRENATAL CARE Textbook pages 1 - 4 17 - 21 29 32 - 37 40 - 41	

Thursday

08:30 - 09:00	Discussion	Director
09:15 - 12:00	Elementary Anatomy and Physiology of Pregnancy	Physician, Nurse
01:00 - 01:30	Review	Director
01:45 - 04:30	Hygiene of Pregnancy, Importance of Prenatal Care, Hospital Delivery and Postpartum Care	Physician, Nurse
	Review	Director
	Study assignments to be given	

Friday

08:30 - 09:00	Quiz #12	Director
09:45 - 12:00	Infant Care	Physician, Nurse
	Demonstrations and Classroom Practice	
01:00 - 04:30	Formula Preparation - Infant Feeding	Nutr., Diet., LPN, PHN, Nurse
	Demonstrations	
	Study assignments to be given	

SIXTH WEEK

Monday

08:30 - 09:30	Quiz #13	Director
09:45 - 12:00	Normal Growth and Development; Importance of Well Child Conference and Early Immunizations	Physician, Nurse
01:00 - 05:00	Review and Study	Director

Tuesday

08:30 - 05:00	Review, practice and study in classroom	Director

Wednesday

08:30 - 12:00	Examination IV.	Director
01:00 - 05:00	Introduction to Environmental Health	San.

ENVIRONMENTAL HEALTH

Thursday

08:30 - 12:00	Food-borne Diseases, transmission, prevention	San.
01:00 - 03:30	Food Protection in Homes	Nutri., San.
03:30 - 05:00	CHA Role in Food Sanitation	San.
	Review and Study	Director
	Film: "Kitchen Habits" "Basic Principles of Refrigeration"	

Friday

08:30 - 09:30	Quiz #14	Director
09:45 - 12:00	Vectors of Disease on the Pine Ridge Reservation	San., Physician
01:00 - 05:00	Vector Control, Proper Storage and Disposal of Garbage and Trash; CHA Role in Vector Control	San.
	Film: "Rabies Control in Community" "Domestic Vector Control by Basic Sanitation" "Sanitary Technique for Rat Control"	
	Identification of Specimens - Demonstrations	

SEVENTH WEEK

Monday

08:30 - 09:30	Quiz #15	Director
	Film: "Sanitary Landfill, Small Community"	
10:30 - 12:00	Visit to a Sanitary Landfill	San., San. Engr.
02:00 - 04:00	Review and Study Session	Director

Tuesday

08:30 - 10:00	Water Supplies, Importance of Safe and Adequate; Community Insect and Rodent Control	San.
10:15 - 12:00	Bacteriology of Water; Water-borne Disease	San., San. Engr.
01:00 - 05:00	Water Systems, Sampling, Plumbing, Treatment	San., San. Engr.
	Films: "Clean Waters" "Sampling and Testing Drinking Water" "Life in a Drop of Water"	
	Demonstrations and Classroom Practice	

Wednesday

08:30 - 12:00	Field Visit to a Community Water Supply Field Visit to Approved Community Watering Point Field Visit to Non-approved Community Watering Point	San., San. Engr.
01:00 - 05:00	Field Visit to Approved Individual Water System Field Visit to Insanitary Individual Water System	San.
	Review and Study	Director

Thursday

08:30 - 09:30	Quiz #16	Director
09:45 - 12:00	Sewage, Importance of Adequate Disposal, General; Diseases Associated; Bacteriology and Microbiology of Sewage	San., San. Engr.
01:00 - 02:30	Sewage Disposal, Specific	San., San. Engr.
03:00 - 05:00	Field Visit to a Stabilization Pond Field Visit to Observe Sanitary Privy Field Visit to Observe Insanitary Privy	San.

Friday

08:30 - 12:00	PL 86-121	San., San. Engr.
	Education Phases I, II, III, PL 86-121	San., San. Engr.
	Role of CHA in PL 86-121	San., San. Engr.
01:00 - 04:00	Review and Study	Director
04:00 - 05:00	Observe a local Rabies Clinic	Director
	Slide Series on PL 86-121	
	Review of Literature - re: PL 86-121	

EIGHTH WEEK

Monday

08:30 - 12:00	Examination	Director

Tuesday

08:30 - 12:00	House Cleaning and Care of Facilities 1. Everyday Tasks 2. Weekly Cleaning 3. Monthly Cleaning 4. Seasonal Cleaning	Home Agent
	Demonstrations and Classroom Practice in Home, Clinic or Hospital	
01:00 - 05:00	Family Budgeting	Social Worker, Home Agent

Wednesday

08:30 - 01:00	Use of Surplus Commodities; Food Storage, Food Preparation	Nutr., Diet., Home Agent
02:00 - 04:30	Dishwashing	San., Nutr., Home Agent, Diet.
	Demonstration and Classroom Practice Preparation of Lunch in a Kitchen (where such arrangements can be made)	

Thursday

08:30 - 01:00	Food Selection and Menu Planning Using Surplus Commodities	Nutr., Diet., HA
02:00 - 04:30	Dishwashing	Nutr., Diet., HA
	Demonstrations and Classroom Practice in an Institution	

Friday

08:30 - 09:30	Quiz #17	Director
09:45 - 12:00	Maintenances of Existing Sanitary Facilities	San.
01:30 - 04:00	Field Visit for Class Practice on Maintenance of Existing Facilities	San.

NINTH WEEK

Monday

10:00 - 12:00	Personal Grooming	San., PHN, HA, HE
01:00 - 05:00	Comprehensive Review	Director

Tuesday

08:30 - 12:00	Examination	Director

Wednesday

08:30 - 12:00	Development of Exhibit	Class
01:00 - 02:30	Types of Clinics and Function	Director
02:30 - 04:00	Clinic Procedures	Physician, Nurse
04:00 - 05:00	Review	Director

Thursday

08:30 - 11:00	Identification and Use of Community Resources	PH Rep., Social Worker, HE
11:00 - 12:00	Discussion	Director
12:00 - 01:30	Nurses Home Visiting Procedures Recording and Reporting	PHN
	Maternal & Child Health Clinic At a Local Hospital	PHN-Team #1
01:30 - 03:00	Maternal & Child Health Clinic At a Local Hospital	PHN-Team #2
	Nurses Home Visiting Procedures Recording and Reporting	PHN-Team #1
	Exhibit Work	Team #3
03:00 - 04:00	Maternal & Child Health Clinic At a Local Hospital	PHN-Team #3
	Exhibit Work	Team #1-Team #2
04:00 - 05:00	Review	Director

Friday

09:00 - 04:00	Home Visits	Social Worker & Team #1
Rotate team leaders (about 2 hrs.) each session)	Home Visits	Nurse & Team #3
	Home Visits	Nutr. & Team #2

TENTH WEEK

Monday

08:30 - 09:30	Quiz #18	Director
09:30 - 12:00	Review and Discussion of Field Experiences.	Director
01:30 - 05:00	CHA Responsibilities in Local Health Departments and Associations	Speakers From Local Health Dept. or Agencies

Tuesday

08:30 - 05:00	County or Local TB and Health Association Workshop	LHAssoc. or Agency

Wednesday

08:30 - 05:00	County or Local TB and Health Association Workshop	LHAssoc. or Agency

Thursday

08:30 - 05:00	County or Local TB and Health Association Workshop	LHAssoc. or Agency

Friday

08:30 - 09:30	Review	Director
09:30 - 10:30	Fire Prevention	Fire Dept. or ACP Rep., Safety Officer
11:00 - 12:00	Motor Vehicle Safety	ACP Rep., Safety Officer, Police Department
01:30 - 03:00	Home Safety	San., ACP, HE
	Demonstrations and Films	
03:00 - 05:00	Review	Director

ELEVENTH WEEK

Monday

08:30 - 09:30	Review	Director
09:30 - 12:00	Health Education Techniques 1. Giving Clear Instructions 2. Using Published Materials 3. Using Visual Aids 4. Community Survey Techniques	HE
	Demonstrations and Films	
	Each student given an assignment for presentation	
01:00 - 05:00	Above continued and review	HE

Tuesday

09:00 - 11:00	Human Relations Techniques	HE, Social Worker

1. Attitude Development
2. Family Responsibilities
3. Controlling Emotions
4. Avoiding Unresolvable Conflicts
5. Handling Critical and Unfair Treatment
6. Interview Techniques

Wednesday

08:30 - 05:00	General Review	Director

Thursday

08:30 - 12:00	General Review	Director
01:00 - 05:00	Student Presentations	Class

Friday

08:30 - 05:00	General Review	Director

TWELFTH WEEK

Monday

08:30 - 12:00	Final Examination	Director

Tuesday

08:30 - 12:00	Review	Director

Wednesday

Graduation Exercises (Time to be set)

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